Transcript of the E9 1 1 Disability Access Summit, held Wednesday, November 15, 2006, at the Federal Communications Commission.

>> **Monica Desai.** Good morning, everyone. Welcome to the F.C.C. I am very pleased to introduce Commissioner Tate, who has long been recognized for her activities and her commitment to persons with disabilities.

Commissioner Deborah Taylor Tate served as senior policy advisor to former Tennessee Governors Lamar Alexander and Don Sundquist. She served as a senior mental health advisor, was instrumental in the creation and implementation of a statewide plan establishing a mental health revision commission culminating in the passage of an entire new mental health law for Tennessee. A key component of title 33 is a separate chapter regarding children and youth. Commissioner Tate is the founder and former president of Renewal House, a recovery residence for formerly addicted women and their children. Her service has included leadership positions on the boards of the Vanderbilt Children's Hospital, Family and Children Services, Junior League of Nashville, Martha O'Brien center foundation, courted appointed special ad vope indicates, Tennessee voices for children, Tennessee Tomorrow, League of Women Voters, and she is an elder at Westminster Presbyterian Church. Thank you, Commissioner Tate.

>> **Deborah Taylor Tate.**
Thank you, Monica, for inviting me to be here. And actually, Commissioner Copps should be going first since he's been here a lot longer than I have, but he's going to speak to you, as well. I'm trying to learn as I go along so that I can be able to speak with everyone who participates here at the F.C.C.. And first, just let me begin by welcoming each and every one of you all, because truly, you all are the ones who are taking your time and your efforts to be here to help advise us on these very important issues. Obviously there are many people who are not present here today who are actually on the ground, in the field where the rubber hits the road, and we hope that they will be involved, as well, but we thank you all for your gifts of your time and your effort and expertise as we move forward. Obviously with any new age and with the technological changes that we are seeing before us, really, in every industry and in every technology, there are also growing pains, if you will, that we all must face as these new technologies appear before us.

There are often new questions that need to be answered, and certainly that is certainly the case with the state level, when I was a state commissioner, and after I arrived at the F.C.C. And so we have to learn how to deal with the old rules and the old laws and old regulations and how they apply to a new world of new technology. And so we're looking to all of you to try to help us with the technological and the policy and the legal decisions as we move forward. I just think that this says one of those issues that are at the very core of what we at the F.C.C. do. Sometimes these are very difficult. And with most all of these decisions there is a balancing of interest. In fact, there are many people that probably wish that we hadn't gone as far as we did with our previous decisions. However, I think this is something that we need to stand fast on.

So we certainly will be looking to hear from each and every one of you about how to move forward so we can ensure that everyone, all Americans, when they make a phone call, when they reach out for help, that they will be able to get the help that they need no matter where they are and no matter who they are, so thank you really for all the time and effort that you are giving to us in order to help us make the best possible decisions for all Americans. Thank you for letting me be here. Thank you, Monica, to you and your bureau for all you're doing for the outreach, to all communities, especially to the disabilities community. And with that said, Commissioner Copps.

>>**Commissioner Michael Copps**
Thank you, Commissioner Tate, for your interest in bringing your experience, your wealth of experience to this. We're delighted to have you here. I want to welcome everybody to the F.C.C. Thank you for letting me come by to say a few words. I see a number of old friends here, some of whom I met almost the first day when I arrived at the commission 5 1/2 years ago, and I see some new participants, too, so that's good news and it is good news.

I want to thank the Chairman for putting this on and for Monica and the Consumer & Governmental Affairs Bureau and others for the hard work of making it a reality. And thank you, most of all, to all of you. Some have come a considerable distance to be here today. That's what pleases me most about this, just seeing the range and diversity of stakeholders we are here, hearing and speech disability advocates, industry, state, local, emergency service providers, and other federal government agencies. We have to make this transition here to bring all these folks together with our new Public Safety and Homeland Security Bureau, so I'm glad to see the Bureau folks are there.

Whenever there's a bureaucratic change or an organizational change, there's always some challenges, always some problems, so I want you folks to be on the front lines of making sure that we have a seamless incorporation of your interest and your experience into our new organizational setup here, and I know Monica's working hard on this with the folks in the Public Safety and Homeland Security Bureau, too, to make sure that this functions as an integrated, well operating place that it's supposed to be. But I'm particularly happy to see industry here also. I have been almost a lifelong believer in the efficacy of public sector private sector partnerships.

That's how we built this country. I think that's how we best meet problems like the problems we're going to be addressing here today, by working together. We didn't build this country by any one sector off by itself, being responsible for everything we did. We did it by pulling together and by not so much the Declaration of Independence that made us free back in 1776, but a declaration of interdependence, recognizing we're all dependent on one another and progress together as a country or really progress not at all.

So we still have a long ways to go. I don't need to tell you that, to achieve functional equivalency for the deaf and hard of hearing and folks with speech disabilities and to surmount more specific challenges like the one that you're going to be talking about today to make sure persons with hearing and speech disabilities have workable and prompt and effective access to emergency services in our new and rapidly

expanding digital world. Walk outside this building, and ask what functional equivalency send means, and you're likely to get a myriad of responses. Fortunately, all of you know full well that this simple but rather inelegant term, which was created by the Americans with Disabilities Act (ADA), directs the Commission to create rules that ensure that persons with disabilities have access to communications technologies on a par with the technologies that are available to everybody else in this country. And with this in mind, telecommunications relay services ("TRS") have been so essential to enable those with hearing or speech disabilities to communicate by phone or video to employers, doctors, families, friends.

But this one type of communication really stands apart from all others, and that's the all important possibly life saving 9-1-1 call, which is perhaps the single most important call any of us may ever have to make. So it's our job here, it's our urgent obligation to make sure that that technology is available and that it works for all Americans, including those using Internet based forms of TRS. It's not an easy challenge, but we're making progress. I think with the kind of talent, dedication, and diversity of experience that I see around this room today, we can get the job done, so I salute your participation in this Summit.

We need your help on these challenging issues. We need your help in first devising the programs and the policies, and then in working with the manufacturers of services and equipment before those products and services get deployed, and that's why I'm so happy to see those folks here today so we don't have to go back afterwards and clean up mistakes, but we make sure we have the right products, services, and technologies in the first place, and then we need your help in the implementation stage, so we look forward to receiving your constructive and creative input.

I am optimistic that the voices of our country's disabilities communities are going to be even better heard in the months and years just ahead, and I'm looking forward to working with each of you to take advantage of every single opportunity we can find. This is not a time to hold back or be bashful. This is a time to push, push hard, make sure your issues have the visibility they need and they get the attention that they need. I want to do my part in making sure that that happens. So give us your best thinking today, and let's work to put this E-9-1-1 challenge behind us and then get on with the job of tackling all the other obstacles that still remain and stand between today and that future day when all the marvelous tools of the digital age can be equally available, equally useful, and equally effective for all citizens of our country. So I wish you well today, and thanks for everything you do.

>>**Monica Desai**
Thank you very much to both of you.
We really appreciate your time in coming down and addressing us this morning, so thank you. We're here today to address E-9-1-1 and disabilities access.

I want to start out with a special thank you to Cheryl King, Deputy Chief of the Commission's Disability Rights Office, who worked very hard at pulling this together, and to Sheri Farinha Mutti for bringing

this idea to hold this meeting and presenting a very compelling case as to why we should hold it at the F.C.C., so thank you. We have a very full agenda today, and we have with us many distinguished panelists to bring to our attention the needs of consumers with hearing and speech disabilities, and we have a panel of experts in telecommunications, technologies, and systems. These panels will educate and inform us today, and the Summit transcript will be submitted into each relevant docket.

A panel of F.C.C. staff will brief us on several related F.C.C. rulemaking proceedings having to do with 9-1-1 calling. We have a panel of representatives from other federal agencies to bring this up to date on what their agencies are doing and can do to assist us in providing accessible emergency response to the public 9-1-1 system. We have providers of Internet based telecommunications relay, the Video Relay Services (VRS), and Internet Protocol (IP) Relay Currently under the rules, providers of Internet based relay are not required to connect their users to an appropriate Public Safety Answering Point ("PSAP") because we waived that requirement until technology advances to where it can support the passing through of automatic location information of the calling party to the PSAP.

Some providers have found interim solutions, and these providers will report to us how they respond to their relay users that want to be connected to their local and appropriate public safety answering points (known as PSAPs) through relay. The Summit efforts will challenge us to achieve the following goals for the day to identify the various types of direct e 9-1-1 access that people with hearing or speech disabilities need, to identify the technology, services, and applications through which access should be offered, to define the technological policy and commercial issues involved in providing the needed access to persons with hearing and speech disabilities.

I'm pleased to have the opportunity to introduce to you, Ollie Cantos, formerly of the Department of Justice, now Associate Director of Disability Policy at the White House office of Domestic Policy.

>>**Ollie Cantos**
Good morning, everyone.
I'm pleased to be here representing the White House, and I bring you greetings from the White House. I am also grateful to all of you for being here today, because particularly of critical importance today is our working together to find ways proactively to meet the needs of people with different types of disabilities who may be in need of assistance in emergencies.

As we all know, Title II of the American with Disabilities Act ("ADA") requires access to programs and services. And what is also critically important to understand is that as we work to continue to comply with Title II, we also see how changing technology brings into play different new issues that have come to the forefront. Back when the A.D.A. was first passed it was a situation where people who had TTYs would ideally call 9-1-1, and if there was an emergency, they would be able to be provided with assistance, but the issue of implementation took a while to take effect, and obviously progress has been made, and now as we move to a brand new forefront with regard to E-9-1-1 services and the need for PSAPs to be accessible, what has now come to fruition

is all of you coming together here in order to exchange appropriate ideas for making sure that the systems and services are to be accessible, and we, from the White House particularly wish to commend the F.C.C. for bringing together various stakeholders, including disability organizations, as well as providers of 9-1-1 service equipment, services and equipment, and also bringing together other stakeholders whose input would be particularly critical at this juncture. As we work to make sure to resolve issues that otherwise could come to pass in the future where there are situations that may arise where problems could come up that now may end up being resolved in advance, and so when we look at the situation today and we see how it is that people with disabilities need to have appropriate access, we also understand that there are different needs that people have and different stakeholders have particularly different perspectives based on where they stand.

So when looking at how it is that we need to move forward, the thing that is really good for us to see is that the F.C.C. continues to work hard on addressing these issues, and what has also taken place here at the F.C.C. is its active implementation of Executive Order 13,347, which promotes access to emergency preparedness by people with all types of disabilities. The F.C.C. has actually played a significant leadership role in making sure to push for telecommunications access for people with disabilities in emergency situations by chairing the Emergency Communications Subcommittee of the Interagency Coordinating Council on Emergency Preparedness and Persons with Disabilities, and by also working in close partnership with agencies from across the federal government on the various other subcommittees that have been put into place by the Executive Order.

We also wish to commend the F.C.C. for its efforts to make sure to address the needs of people who are deaf, blind as well, and the particular issues that are meant to be tackled there, as well. Ultimately, all of us pushing for universal access, so regardless of what disability a person happens to have, they would have ideally have the same access to emergency services as everyone else, and when looking at the issues that we have to face with respect to I.P. relay, as well as VRS., we also recognize how important it is specifically to make sure that people with disabilities and those who lead disability organizations continue to be at the table and to also work with manufacturers, as well as first responders and others on the ground so that there's a coordinated approach to universal design and making sure that people with disabilities have appropriate access.

And today, because of the efforts that are going to be moving forward, we are going to continue to be in dialogue with one another, and I will be here for the whole day to listen specifically to the recommendations that are given by the various panelists who are to be making presentations throughout the day, and then to take those recommendations back with me to the White House, because what's important for all of us to understand together is that this requires a holistic approach, which brings together stakeholders for different perspectives to make sure to address the ideal and finding a way to advance the ideal of universal access. In doing that, and in staying for the rest of the day, I'd like all of you to know that I will be listening very intently representing the White House Domestic Policy Council here, but also that if any of you wish to get in touch with me

directly, I'm actually going to give you my phone number so that way you have direct access if you need to reach me if you have any additional thoughts to raise. You may reach me at 202 456 7330. My email address is ocantos@who.eop.gov. The number I gave you is actually the direct number to reach me. It gets you around the secretary and other folks.

In my particular case, it's best for accommodations if some folks can get in touch with me, either by VRS. or relay or some other alternative if they don't communicate by voice. But I'm really pleased to be here for the whole day to make sure to listen very intently to all the issues that is to be raised here, and more importantly, the action steps that are recommended by different folks in order that we may move forward in a substantive way to make sure that the needs of people with disabilities are met and ultimately resulting in lives being saved. If people have potential injury, they may receive appropriate care, and whenever other situations arise within an emergency context, we need to make sure that people with disabilities are appropriately served. Thank you very much.

>>**Monica Desai.** Thank you very much, Mr. Cantos, and welcome. We now would like to hear from the F.C.C. Cheryl, would you introduce these next speakers?

Cheryl King
Yes, thank you Monica. We do have a number of open rulemaking proceedings related to our issue today of E-9-1-1 Disability Access, of which I'm sure you're aware. Tom Chandler, Chief of the Disabilities Rights Office in the Consumer & Governmental Affairs Bureau, will report on three open items, and Carol Simpson of our new Homeland Security and Public Safety Bureau will report on other 9-1-1 related proceedings.

>>**Tom Chandler**
Thank you, Cheryl, and good morning. Hello to all the familiar faces. We all anticipate this will be an important and valuable day, and will set the groundwork for some real progress in tackling these difficult issues. As for my part, other than listening and learning, I would like to very briefly summarize three open TRS items we have addressing issues relevant to this Summit.

First, and probably most important for today, in November 2005, the Commission released the VRS/I.P. Relay E-9-1-1 NPRM. That's an awful lot of numbers and letters, but that's basically teeing up the issue of how the Internet-based relay services can handle 9-1-1 calls. As we all know, for these services, presently emergency calls cannot automatically be routed to the appropriate PSAP with location information automatically displayed. When an emergency call is placed through VRS, the communications assistant, the "C.A." that receives the call must have a means of knowing first where the caller is located, and second, the appropriate PSAP that corresponds with that location, so then the C.A. can make the outbound call to that PSAP. This can be done, as we know, with TRS calls made via the PSTN, but not with calls made via the Internet. So the C.A. has to have some other way of ascertaining the caller's location. The NPRM sought comment on various ways in which emergency calls made via I.P. Relay or VRS can be handled, including possibly through the registration of location

information. I believe approximately 11 comments and eight reply comments were filed in this matter, and I know this is an issue that's going to be discussed later today.

I would also note, and Monica alluded to this, that there are waivers for these services presently, the 9-1-1 waiver for VRS expires at the end of this year, and for I.P. Relay at the end of 2007. Earlier this week, one of the providers filed a petition to extend the VRS waiver until either the end of 2007 or until the Commission releases an order on this action, whichever is sooner.

Second, in May 2006 the Commission released the Interoperability Declaratory Ruling, and that included an FNPRM addressing whether and how an open global database of proxy numbers could be used for VRS users, so that a hearing person could call a VRS user through any VRS provider without having to first know the I.P. address of that VRS user. More broadly, this raises the very important issue of trying to have Internet-based relay users have their own personal 10 digit kind of telephone number that can be used to make it more seamless to make calls back and forth between the Internet users and PSTN users. This item also raised the issue of whether we should adopt specific protocols to ensure that VRS consumers and providers can make calls to each other, in other words, to make sure that the equipment is compatible. Eight comments and five reply comments were filed in this matter, and I believe the numbering issue is going to be a topic addressed this afternoon.

Finally, in May of this year the Commission released an NPRM addressing the use of I.P. Relay by persons defrauding merchants with stolen or invalid credit calls by hiding behind the anonymity of I.P. relay and also the misuse of VRS by persons who use VRS as a substitute for in person interpreters or VRI. These issues are also relevant to what we're talking about today, because this sort of misuse takes up a lot of time of the C.A.'s. If the C.A.'s were freed up from the time they spend dealing with fraudulent calls and inappropriate VRS, they would have more time to respond quicker to the VRS calls, for example, quicker speed of answer times, which is obviously key to having the C.A.'s handle incoming handling emergency calls. Approximately nine comments and four reply comments were filed on this item. Obviously DRO and CGB and the front office staff are reviewing the comments and reply comments in these proceedings. We certainly realize the importance of these issues and are moving forward on them, so please stay tuned and hopefully today we'll learn some things about the first item that will help move that issue forward. Thank you.

>>**Carol Simpson**
Now can everyone hear me? I'm going to give an update on the VoIP 9-1-1 proceedings. Can you hear me? Is this coming through? OK. Yeah, OK.

>> **Male Audience Member.** May I ask a question for clarification. Is that permitted?

>>**Monica Desai** Would it be possible to save the question for the Roundtable at the end of the Summit?

>> **Male Audience Member.** Sure.

Carol Simpson. The VoIP 9-1-1 order was released in June of 2005. It applied 9-1-1 obligations to providers of interconnected VoIP service, which essentially means VoIP service that enables calling to and from the PSTN. The requirements of the order were essentially that by November 28, 2005, procedures of interconnected VoIP were required to obtain and facilitate updating of customer location information, defined in the order as registered location, and transmit all 9-1-1 calls to the PSAP for appropriate or appropriate local emergency authorities that serves the callers' registered locations. The order prohibited any opt out of 9-1-1 service. It required providers of interconnected VoIP to notify customers of any limitations on 9-1-1 service and obtain acknowledgment from every customer that they received and understood this advisory. The order required providers to file compliance letters by November 28, 2005, detailing their compliance with the new VoIP 9-1-1 rules.

The FCC's Enforcement Bureau continues to review these compliance letters, including updates that providers have subsequently filed, and we are encouraged by the progress that interconnected VoIP providers have made so far in complying with the Commission's rules. The current status of the proceeding is that there is an appeal of the 9-1-1 VoIP 9-1-1 order pending in the D.C. Circuit. The oral argument was September 12, and we are awaiting the court's decision.

In addition, there are a number of waiver petitions pending. Finally, there was a notice of proposed rulemaking that accompanied the order that asked a variety of questions, including a number of questions about disability access to 9-1-1 over interconnected VoIP service. The NPRM asked about technical issues and challenges involved in providing disability access to 9-1-1 over interconnected VoIP. And it also asked whether there were steps the commission could take to ensure that people with disabilities who want to use interconnected VoIP have access to 9-1-1 services. So the NPRM is currently pending.

>>**Cheryl King.** Thank you, Tom and Carol. And now we have invited a number of federal agency representatives, and we'd like to have them give us an update on what's going on in their realm regarding the 9-1-1 issues. We have Claudia Gordon with the Department of Homeland Security, Office for Civil Rights and Civil Liberties, and Jenny Hansen, with the Department of Transportation who is going to introduce herself. She's working with the next generation 9-1-1 project.

>>**Claudia Gordon.** Good morning, everyone. Thank you, Cheryl. I'm Claudia Gordon with the Department of Homeland Security's Office of Civil Rights and Civil Liberties, and I bring you greetings from our Department and also thanks to the F.C.C. for hosting this very critical Summit in response to the needs of the deaf, hard of hearing, deaf blind, and mainstream community at large.

The Department is truly interested in potential solutions and options for resolving these issues, and in fact, we did meet with representatives from the E-9-1-1 stakeholders council several months ago, including reps from Department of Justice and the F.C.C. in a discussion of responsibilities, etc., and possible ongoing issues for next steps and resolutions involving this issue for E-9-1-1. We're pleased to see additional progress being made by the Summit today, and

we really look forward to hearing about recommendations in helping implementing the findings from this Summit.

I'd like to tell you a little bit about my office, Civil Rights and Civil Liberties, which is housed within D.H.S. We work with every element of the Department to ensure that all of our policies, all of our procedures and practices and systems involving emergency preparedness and response and recovery, all risks are mitigated, including new issues and concerns of individuals with all types of disabilities. Some of you are already aware, President Bush signed an Executive Order, 13347, in July of 2004, specifying that individuals with disabilities are to be included in emergency preparedness. D.H.S. was charged with that important task by the Executive Order. Which basically outlines federal policy, and that the government is to ensure the safety of the individuals with disabilities in the planning and coordinating of emergency preparedness, and from that Executive Order, we have established the Interagency Coordinating Council on Emergency Preparedness and Persons with Disabilities. We have over 22 federal agencies and departments who are currently involved actively in the work of this council addressing a range of issues, including emergency transportation, emergency communication, research, health issues. The F.C.C. has been the chair of our Emergency Communications Subcommittee since the inception of this Interagency Council.

We really want to thank Chairman Kevin Martin and the FCC for their ongoing commitment in implementing this Executive Order. FEMA is one of D.H.S.'s operating elements, and we've worked closely with them on a range of issues. Some of you may be aware of them, while F.C.C. regulates the emergency alert system. FEMA, under the Stafford act, is responsible for actually activating the alert system. We have worked closely with Cheryl and the Emergency Communications Subcommittee to develop potential solutions, and we are committed to continuing that partnership and that effort with all of the stakeholders here today. So thank you very much for the opportunity to be here and to listen in on what you have to say today. Thank you.

Jenny Hansen. >> Good morning. I'm Jenny Hansen. I'm a contractor to the U.S. Department of Transportation serving as the project coordinator for their next generation 9-1-1 project, and I do have a slide presentation for you this morning. I'll cover an overview of the connection between 9-1-1 services, the next generation 9-1-1 project, and the U.S. Department of Transportation. The Highway Safety Act of 1966 brought focus on emergency services to Department of Transportation by way of the highway system in reporting car crashes, and while there was no 9-1-1 at that time, the Department of Transportation really looked at that as the first mechanism in reporting crashes and with respect to saving lives, the response time of emergency medical service providers. So emergency medical services was a focal point since 1966 in U.S. department of transportation. Ultimately, it went under the umbrella of the National Highway Traffic Safety Administration, or NHTSA. You all see the crash test dummies on TV and know about those tests in the automotive industry, that is NHTSA Under NHTSA and the office of E.M.S. is now the 9-1-1 focus. a little overview on some of the common problems and I know I'm preaching to the choir on a number of these issues, but just for some background. With respect to rural and urban issues, there are common threads with 9-1-1 call routing.

We do have a lot of have's and have not's in this industry with respect to emergency services. One of the more significant challenges in rural America is with analog telephony moving into wireless and now the VoIP industry. These rural and urban challenges must be met now, with short term solutions as well as the long term, because all areas are receiving these calls from the newest devices.

The outbuildings are also presenting challenges in rural America, the sparse population, we have a lot of area to cover with few resources, not just by way of people and expertise, they're wearing many hats to get the same job done, but finding a lot of issues with respect to the topography to cover and bridge the gap between the sparse resources and limitations. The smaller PSAP's have significant limitations by way of resources, as well as the funding issue. We talked about funding problems with cellular technology and deploying phase two location information in the cellular world. We're still not there 100% as a country, and especially rural America where it is a challenge just to provide cellular service in general, let alone location based services. Urban America typically looks at the cutting or bleeding edge of technology and starts to work out the bugs for the rest of us as they move forward. High rises, we talked about emergency services and location technology, not just push to talk radio, but also now in the VoIP industry with penetration issues on determining where within a high rise anyone could possibly be requiring help.

The multiple line telephone system is a complex issue. We addressed that with the F.C.C. 94-102 order years ago, and that still hasn't been corrected to a degree where we are saving lives to the degree that we need to be and could be. The dense population presents a challenge for technology, as you can imagine, as well as a large PSAPs, the turnover in our industry is pretty significant, as well as the training component. We have to keep up on the training, not just with the new technology, but with the people that come through the communication centers. Today, with respect to the hearing impaired community, the laws that are provided in the dispatch centers maintain that you have to maintain your TTY training every six months. But again, who under the age of 30 uses their TTY? It's the only thing that we have available now for communication with the deaf and hearing impaired, but we've got to do better than that. But as far as the training component, that's the only consistent area with respect to A.D.A. in the communication center that is allowable or provided today.

How did DOT get involved in 9-1-1? A number of issues that Secretary Mineta provided. He convened a wireless stakeholder Summit in April of 2002, which ultimately accelerated the deployment of wireless cellular actually phase two deployment, and provided a focus or national leadership to the area of wireless 9-1-1, alongside the F.C.C. and a number of public safety associations. With these groups, they developed a number of accomplishments, one being the priority action plan, which brought together a steering council of public and private partnerships looking at phase two deployment on a national effort. And also served as a clearinghouse for different types of information, including an inventory of what we have in this country by way of providing location technology and wireless services.

Ultimately that led to a wireless discussion in Silicon Valley, looking at a technology roundtable, bringing out the scientists at the drawing board and identifying the challenges for the future, and they were talking a foreign language about I.P. services and WiFi and Wi Mac, and that was just a few short years ago in 2003, and here we are, VOIP it's a common, everyday word that we're using now, not only in private industry, but in the PSAP environment.

We're continuing to try to field these calls, and often losing them. So with that discussion, in 2003 that was so foreign to us, the Secretary recognized that the public safety industry, particularly the PSAP, was always in a catch up mode, and it was about time that we worked shoulder to shoulder with industry developing the technology together to provide the solution for the future, and that led to the next generation 9-1-1 initiative that actually focused on developing a project. So I'm talking about a future with a long term solution.

If we're going to look at every agency that could impact or touch an architecture that we're talking about in an I.P. format, this dot would actually be a solid black dot, because everyone in public and private sector today, technology, the way it's changing, has us intersecting with each other's lives much sooner and more readily available than any time ever before. And for many of us, that's a good thing. There are other issues where it makes it problematic, but for the most part in our emergency service world, that's a really good thing.

This says an overview of today's 9-1-1 is typically locally driven on analog technology with no redundancy or backup. You have minimal data, as data centric we've become in our industry, you don't have the capability to share the data. There is no backup system, and there's no emergency notification system, a reverse 9-1-1 component, if you will, or evacuation notices. We, the DOT participated in the FCC's post-Katrina hearings, and know that the evacuation issues in particular are a significant piece and need for emergency service systems.

The consensus within our community, in the 9-1-1 industry, is to provide quicker and more accurate information to the responders better and more useful forms of information and a flexible, secure, and robust PSAP operations.

Ultimately, this should lead to lower capital and operating costs in a shared environment. So ultimately the project goal would be to design a system or a system of systems to enable the transmission of voice, data, or video from different types of communications devices to the PSAPs and other emergency responder networks. And again, we're taking work that's already been done.

We work closely with the F.C.C., closely with the work that has been produced as we move forward with this effort. And we realize that it's not feasible to look at a forklift solution, but work with legacy systems as we move forward into the future and not obsolescence. The three major milestones of this project include the design of a national architecture in I.P. format, not just I.P. as we know it today, but the newly developing i 3 format. If you think of i 3 in the technological sense, it's similar to a phase two format, meaning your location is known on any I.P. device. The proof of concept is going to be to build out this design and demonstrate it somewhere, perhaps it's in a

laboratory in a typical research and development project at U.S. DOT., or we do have states that are gearing up and delivering I.P. format services to a degree today that are showing interest in becoming this beta site test environment.

The transition plan, this third milestone is equally important providing the PSAP's with a road map on how to plug and play into this architecture. What we're doing now is participating in engaging the stakeholders by being invited to Summits like this. I work closely with Sheri and Claudia and a number of groups, especially on disability issues, and a number of private industry sectors, as well, along with the public safety associations.

We're establishing a vision of a national architecture and defining the future with collaborating and defining a shared system. Again, we're not going to reinvent wheels. We have to build on existing architecture in an I.P. environment and recognize it's ultimately going to be a system of systems involving public and private groups.

Current activity, the R.F.P., or request for proposal, closed in early July. I'm now in the process with our team of reviewing the best and final offers, and we are on schedule to give a notice to proceed to this team by December 1 of this year. So the decision is imminent in bringing a team together to begin the work in this two year effort. We are continuing to engage the stakeholders, and our next session will be to invite the federal agencies to start identifying federal partners that have projects underway that could impact or touch the architecture.

Homeland security has a number of efforts, projects in public safety, push to talk radio, Project SAFECOM for one, has a clear relationship to this project. Just a few examples on other efforts in the U.S. Department of Transportation that includes the U.S. Department of Commerce by way of the NTIA. NTIA and NHTSA have been charged by the ENHANCE-9-1-1 Act of 2004 that went into public law to establish a National 9-1-1 Office. Thomas Hardy is with me today as the NTIA half of establishing this office.

NTIA and NHTSA signed the memorandum of understanding last year. We're taking steps now in drafting the strategic plan, working on budget, and identifying a plan and moving forward as the appropriate measures to take by way of what's the best use and need for public safety answering points to provide in this office and how can we provide sufficient leadership? Ultimately it's a single point of contact on the federal level, but equally important is a grant program that's authorized in the office for $250 million a year. Authorized is a key component of this sentence. As we know, in Congress, authorization doesn't necessarily mean funding. It has not yet been appropriated.

We have a mass distribution list that we provide project update out of the department. Feel free to email me at the information provided or see me during a break, and I'll be happy to answer questions. And I can add you to our list. Thank you.

>> **Cheryl King.** Let's take a 15 minute break now. The restrooms are in the hallway past our hallway in front of us, and we'll see you back here in 15 minutes. Thank you.

Cheryl King. Welcome back. We have so many important things to talk about, we don't want to lose a single minute. Our next panel will be a panel of our Internet-based TRS relay providers who will give us updates. And Jay Keithley will moderate that panel.

>>**Jay Keithley.** Thanks, Cheryl.
As Cheryl said, we have a panel of VRS and I.P. relay providers to speak with us today. After hearing prior presentations describing the issues that need to be resolved, and take us from an analog world to a digital world and provide the same kind of functionality in a digital world that is currently available in an analogue world, it's important for us all to realize that that obligation ultimately is going to fall on the providers. You all may have the toughest job along with PSAP's in getting us from where we are to where we hope to be and get us there in as timely a manner as possible. As most of you know, the Commission encourages people with speech and hearing disabilities to contact emergency services by making 9-1-1 calls using a TTY. or traditional TRS. Our rules recognize, however, that emergency calls will be made to relay centers and must be appropriately handled. As Monica has indicated and Thomas well, our rules currently require TRS providers to process emergency calls and immediately transfer the caller to the appropriate PSAP. The PSAP is one that would have been reached by dialing 9-1-1, PSAP capable of dispatching emergency services in an expeditious manner. The rule has been waived for VRS providers until the first of next year, 2007, and I.P. relay providers until the first of January of 2008.

And as Tom indicated earlier, one of the providers yesterday filed a petition seeking to extend that waiver until the earlier of January 1, 2008, or the resolution of the NPRM that Tom described. Again, we have released an NPRM looking into these issues. The comment cycle is closed. The matter is currently under evaluation by staff, and as Monica indicated, the record of this Summit will be included in the record of that proceeding. We have asked the Internet based TRS. providers to give us a snapshot of how they look at how they currently handle emergency calls, and if we have time, if not during this panel, during the roundtable give us some idea as to how they perceive us getting from where we are to where we need to be. I'll ask you to speak. We'll just go from left to right.

If you give me one second, I will introduce you. I don't think I'm skipping anybody as we move down the line. From the Communications Access Center in Michigan, Bill McClelland is here. From CSD., Mike Eske. From Hands OnVRS, Kelby Brick. Mike Maddix from Sorenson. Kevin Colwell from Ultratec. And from Verizon relay services, Jerry Nelson. Thank you all very much for being here. Bill, we'll just start with you, and just proceed down the line.

>> **Bill McClelland (CAC)**
Thank you for inviting us to participate in this E-9-1-1 Disability Access Summit. We think it's very important. CAC has been a long term provider of VRS services and provides internet protocol relay in partnership with the inventors of IP relay. To date, CAC has not received any requests for 9-1-1 services via VRS and not had any complaints from users of text based services that we provide in relay.

We have received thanks and compliments from people that have needed to reach these services when they have not been able to use traditional PSTN services. We encourage our users to contact 9-1-1 directly using the PSTN, and we'll continue to do so until technology can provide functional equivalence for Internet-based services. If a request is made to contact 9-1-1, our CAs and interpreters have immediate access to a nationwide database of PSAPs. The CA would then ask the caller's location information such as city, state, or phone number. Using that information we're immediately able to connect to the PSAP using 10 digit dialing and our CAs would relay the call. It is necessary for our CAs because the PSAPs lack the technology now for either video or text over IP.

Registration is ineffective in that it is subject to the users maintaining their location information. Example, I register my home address but call using my notebook PC from a local Starbucks. That registration is no longer valid. Today's communications demand that people are able to communicate while on the move, gone are the days that people sit and wait for calls. People must be able to be reached at home office or elsewhere, they must be able to place a call including 9-1-1 calls from any device the same as hearing people. In trying to update your location at each new location before using your communications tool of choice is contrary to the need for mobility.

The second example is Voice Over IP (VOIP). I personally have Vonage phone service at my home and am registered with Vonage requirement for 9-1-1 services. That Vonage adapter is very small and very portable. If I were to bring that here to the F.C.C., plug it in and dial 9-1-1, I would reach a PSAP in Cedar Rapids, Iowa, because the database would not be updated. So while the requirement is there to do registration the 9-1-1 part of that, unless the individual maintains that, it would be ineffective. Wireless devices will be the easiest to bring into functional equivalence as they have Location Based Services (LBS) built into the device. That location based service can be used to GEO locate the device and connect to the correct PSAP. But then you still have to have the connectivity in either video or Text over IP Wire internet suffers from the same if not bigger issues surrounding PBX systems. PBX systems have a separate user maintained database for location, if a person in a building on a LAN is making a text based or video based call, there is almost no way to find them in the building without soliciting that information from them. Other technical issues such as virtual private networks mask the user's true IP and cause further inability to determine geo location.

The one January 2007, date is not technically feasible at this point and needs to be extended until new developments in 9-1-1 technologies can meet this requirement. Relay providers will not individually be able to provide this functional equivalence but need to be included in the process to make these changes. Thank you.

Jay Keithley. We'll note that is support for the previously filed waiver petition. >>

Mark Ekse
Good morning. I'm Mark Ekse with the Communication Service for the Deaf (CSD). I'd like to thank you for inviting us to talk on this important topic. I think Cheryl King did a wonderful job of setting an

example for the difficulty topic that this provides by inviting us to discuss a topic that we're very passionate and involved and excited about and giving us a three minute time limit for it. Communication Service for the Deaf provides the call center operations not only for CSDVRS, but our partners as well, SprintVRS. We do receive and process 9-1-1 calls periodically. On average, it runs about 3.2 calls a month for the last 24 months.

Like C.A.C., we encourage our users to make those 9-1-1 calls using a traditional TTY because of the ANI and ALI information that can be passed to the PSAP automatically to overcome those PSAP locations that Bill was talking about just a moment ago. However, we're never going to turn away one of those calls, somebody's last attempt to try to get the help they need. When one of those calls comes into our center, right now there is no uniform way to designate that as a 9-1-1 or an emergency call prior to the V.I. or the C.A. answering the call. That's exacerbated by us being a hardware agnostic service. We don't care whether you're using a webcam on a laptop, whether you're using a videophone, whether you're using a set top appliance. And they don't have a uniform way of passing that information to indicate that it's an emergency call. Once it goes through our queue and is answered by a V.I., a video interpreter, and they determine that it's an emergency call, that call immediately becomes a two V.I. call. They immediately call a second V.I. on to help process the call. The original V.I. maintains eye contact with the user and focuses just on pulling the necessary information from that user and making sure that communication happens as quickly and as effectively as possible.

The second V.I. is responsible for capturing all that information, writing it down, so that if that communication is lost, for whatever reason, that information is available so that we can attempt to connect to the appropriate PSAP and apprise them of the situation, regardless of the ongoing nature of the call. The first thing that we ask the caller is what the nature of the emergency is. Is it fire, medical, police? In addition to determining that, we then start to pull their location information from pull their location information from them.

If they have a user profile with us, which is voluntary, not mandatory, that information is already populated on the screen, if they are calling from their registered device. We use that information to try to confirm as quickly as we can that that's where they are and that's who they are. If they are at a different location, we need to get that information manually. Like C.A.C., all of our video interpreters have access to a national database that provides PSAP information. There are some difficulties with all of those databases. From time to time there are errors in those where you may get an administrative number rather than a 10 digit emergency number, and that administrative number may not be staffed 24 hours a day. May not even be in the emergency call center itself. Additionally, the information that you pull manually from somebody may not meet the master street address guidelines that most of the PSAP database providers use for cross referencing their information. My 3 year old daughter can sign well enough to tell you her Mommy is sick and needs a doctor, but she has no way of telling you what her address is. That's another situation where there is difficulty in pulling that information manually. Once we connect with the PSAP, we continue to facilitate that call. Our

interpreters are trained in a general sense to try to make sure that any of the background information gets conveyed to the PSAP as well.

Things like the person is becoming more agitated, more nervous, there are people running in the background. That type of things that are cues that would normally be missing from those calls because the PSAP does not have the direct audio link with the user. Like C.A.C. We have received no complaints about our 9-1-1 service. To date have none on record. We do keep a record of all of our 9-1-1 calls so that we can go back and evaluate with that video interpreter what worked, what didn't, what we need to improve in that process. We continue to look at how to improve that process, things like bringing geo location techniques to play to at least provide some level of validation for the location information that we have been provided. Does it trace back to the same city, does it trace back to the same pop.

I think Jay in his opening comments addressed the language that the rules that are currently waived that require that that call be automatically and immediately transferred to an appropriate PSAP. Just to make sure that linguistically we're clear, those calls are never transferred. Unlike a relay TTY. call where some providers may choose to transfer those physically to the PSAP, others choose to process those as a traditional relay call, the PSAP's aren't equipped to process that video. And even if they were, the people on the other end are not certified interpreters. That communication isn't effective even if you could transfer that video. Currently there is no way to pass that user information to the PSAP. There isn't the ANI and ALI information that's there.

I commend the Commission for the work that they started in January, when with their support, this issue was referred to NANC, the North American Numbering Council, to try to look at adding it to the North American Numbering Plan as a way to overcome one of those limitations and a way to provide a callback mechanism for VRS. But at least for the foreseeable future and pending the D.O.T.'s progress in that next generation system that's going to continue to be a relay call.
Thank you.

Jay Keithley. Thank you.
And you have demonstrated how tough it is to make your presentation in three to five minutes. >>

Mark Ekse. That's why I didn't include slides. I can't make it past the introduction in three minutes.

Jay Keithley Is there anything that can be done to address the speed of answer of those calls?

Mark Ekse: Sure, and I am going to ask the other providers to jump on this as well because their platforms may be different. One of the things that can be done, and I believe it is probably going to require a waiver of the FCC rules as to how we prioritize calls, is that if you look at it on a provider by provider basis there can be a specific URL that is used to identify that call. That gets around some of the hardware limitations. While some video phones can pass that phone number to specific providers, if you are using a web cam and net meeting, that is not going to happen. Hitting a specific URL can do

that. That is going to require some user education and some outreach to go out and educate the users how to do that. That is one way it can be done. I'll let the other providers jump in there for other solutions.

JERRY NELSON (Verizon Relay Services)

>> Good morning. Verizon thanks the FCC for the opportunity be part of an important beginning toward a viable solution for full access to emergency services via internet based relay services.

What was discussed this morning by others preceding me is identical to the current operating procedures that Verizon has in place for handling emergency calls via IP relay and VRS. Our website has a statement that encourages users to call 9-1-1 on a TTY. Experience to date has already demonstrated that people generally do not do that. The reason for this is that people are migrating from the traditional TRS to IP relay and VRS. While we talk about IP relay text, this also includes wireless relay, IP relay web client and instant messaging relay services as well as VRS. I will now explain how Verizon processes 9-1-1 calls. When we receive any calls, we have no way of knowing in advance if it's an emergency call. The caller must inform the relay operator that this is an emergency call and of a need emergency help. What the operator will do is immediately call a supervisor for backup assistance. During the process, the operator will ask the caller for state and town information, which is identical to what others have already stated.

Verizon has a national PSAP database, which searches for the town and state, and then locates the corresponding PSAP's phone number. The operator goes into the database and connects it to the PSAP center. Then the call is processed as a normal relay call. I do want to emphasize, though, while we do not make procedural exceptions with any calls, we do make exceptions on protocols because this is an emergency call. This would include translating ASL text into English without being prompted, and not requiring the use of "GA", to speed up the processing of the call. We don't want to slow down the call. We want to expedite the call as soon as possible. In addition to procedural aspect, Verizon also provides ongoing training with the relay operators and the video interpreters on being able to handle all different kinds of emergency calls.

At this time, with respect to VRS, we currently do not have the ability to provide access to 9-1-1 service. However, we are in the process of enhancing our platform so that we can handle emergency calls starting this December. The process for handling emergency calls via VRS will be basically the same with IP relay text.

Now that we're familiar with process using the PSAPs, sometimes the PSAP information is not accurate. The PSAP database often transfer the call to the appropriate PSAP, thus making sure that the PSAP information matches the person who needs help with the appropriate PSAP. Sometimes the connection is to the wrong PSAP and no further information is available from the database. Our supervisor immediately calls 411 to find out which PSAP is appropriate one to make the connection.

I hope I'm keeping myself to three minutes here. The bottom line is, like all the providers have mentioned, Verizon supports the waiver for the VRS emergency access. Also, Verizon stands ready to work with everyone, especially the industry and all other stakeholders, to be achieve viable solution. Because there are so many stakeholders that are involved here, obviously, as you can see around the room, this is a big challenge. There are lots of issues to work on and Verizon will be glad to work with everyone. Thank you for this opportunity again. Thank you.

Kelby Brick (HandsOn VRS)
Hello, everybody. My name is Kelby Brick. I'm with Hands on Video Relay Services, HOVRS. I would like to just say amen to all of the of my predecessors here. I'm sure it's going to continue down the line here. Every time that we have contact with the consumer, we try to emphasize as much as possible the fact that we cannot and should not handle 9-1-1 calls. Because the technology, the architecture just is not there. For the most part, our consumers are very well aware of that. Occasionally, we do receive an emergency 9-1-1 call in the form of a 9-1-1 call or that type of request, and we clarify immediately that we are not capable to handle that type of call. The technology is not there. At the same time, we do immediately instruct the consumer to connect to a land line, to pick up a land line and call 9-1-1 or relay or find someone who can actually make that 9-1-1 call for them.

And at that point, we convert the VRS service to V.I. or video interpreting services, and we provide on-site remote interpreting services. We do not bill for that time. Until the emergency personnel arrives at that site and provides the assistance, we try to provide the communication access necessary. We know that this is not adequate and it doesn't even come close to being adequate. We have not yet received any complaints from our consumers regarding this process. Now, don't get me wrong. We do receive complaints about the fact that the architecture is not in place yet and we're not able to handle those calls. And there is a lot of resentment that that national architecture is not available to handle those 9-1-1 calls

I could stay quiet here and stay out of trouble, but we need to find a way to address this issue as much as possible. I'm going to stop here before I get into more trouble. And so with the 9-1-1 calls, we want to make it as effective as possible because we're talking about saving lives.

Research has shown that the ability of PSAPs to call back the customer is absolutely critical for saving lives. We want to professionally handle those 9-1-1 calls and be able call back those consumers and connect to them. That capability is not yet there. Very soon the consumers are going to move forward quickly, and a national numbering system could be set up. The F.C.C. has already received numerous comments in support of setting up a 10 digit system for VRS. The FCC has previously stated that they've received very few comments from consumers in support of this.

But that's not true. The docket is full of many comments that are in support of the 10 digit numbering system we must not ignore those comments. We must move ahead and set up that 10 digit numbering system for the video phones as quickly as possible. We also have a rates

method of processing now. That method must be established in a way that will ensure enough research and development funds as possible so that we can support this 9-1-1 national system. We have received remarks from staffers in the Commission that this is not an important issue and that relay services is considered a mere accommodation and that it's acceptable for hearing people to go through this long, complex process of calling as consumers. That is not acceptable for a 9-1-1 environment, and the new rate system that must be established in a way that supports the research and development, so that we will be able to provide 9-1-1 access as required by the commission. Thank you.

> **Jay Keithley.** Mike, please.
>>
Mike Maddix (Sorenson)
Good morning. My name is Mike Maddix with Sorenson Communications. We very much appreciate the opportunity to participate in this important Summit. As the FCC instructs, Sorenson continues to inform its users that the most effective way to place a 9-1-1 call is with a TTY and dialing directly to the 9-1-1 center. Many of our users have told us due to the expense of having an Internet connection and a phone line, they have, in fact, shut off their phone lines, and as a result did not have a method to dial 9-1-1.

This feedback led Sorenson to see what could be done to provide 9-1-1 services today to people who do not have any other options. Sorenson quickly learned that solutions that existed for voice over I.P. were not going to work in the internet relay environment without additional development, and we sought out a technical partner with a long history of providing solutions in the 9-1-1 field. We partnered with a company called INTRADO to help us make these customizations needed to adapt VOIP solutions and other solutions. We began doing test 9-1-1 calls in March, 2006, and publicly announced the service at the NAD conference in July, 2006.

Sorenson recognizes that 9-1-1 calls must be handled as quickly as possible. For this reason, when a user of Sorenson VRS dials 9-1-1 with their Sorenson VP 100 or VP 200 videophone, the call is identified as a 9-1-1 call and is routed above all other calls for immediate processing. This means that a caller that needs to call 9-1-1 does not have to wait if a provider has high call volume resulting in a delay to process calls. This same prioritized access can be provided by any provider by using a unique URL for emergency calls. Today the internet does not provide the means to transmit the physical location of the caller.

Currently the VRS user must provide the location or interpreter when the call is connected. The physical location is then passed to our technology partner INTRADO which helps us determine the appropriate PSAP and the call is connected to the 10 digit number of that PSAP. When the call is connected, the PSAP is informed the call is a relay call, and the 9-1-1 operator takes control of the call and obtains the pertinent information for the 9-1-1 call through the relay service. When the first responder arrives at the location in the emergency, the Sorenson interpreter stays connected to the relay user in case assistance is needed to communicate with the first responder. We realize the solution currently in place is a first phase solution using

what is technically possible today. We intend to introduce improvements that will help us to know the location of users in advance of the call. We also intend to make improvements and will reduce the amount of time it takes to determine the correct PSAP and connect to it.

We are also working with our partner to have the calls natively routed into the 9-1-1 system, passing the physical location of the relay user when the location is actually known. Sorenson recognizes the important need the deaf, hard of hearing, and the speech disabled have to access 9-1-1, and we are committed to use the latest technology and provide the best possible solution to its users. Thank you.

>> **Jay Keithley.** Thank you, Mike. Next, Paul.

>>**Paul Ludwick (Sprint Nextel)**
My name is Paul Ludwick. I'm here representing Sprint. I appreciate the opportunity to talk on this issue. It's about as important as they come. Any time you're dealing with people's lives, you really want to make sure you're doing the right thing, you're doing all you can. I think it's clear that everyone who is up here on the panel would like to be able to provide 9-1-1 in a way that is similar to if not exactly the same as those that don't use the relay network.

So I'd like to talk a little bit about Internet relay. We have not had any formal complaints that I am aware of. As Mr. Brick mentioned, we often get comments and suggestions on how to implement 9-1-1 capabilities. We're always open to them. But up to this point in time, we have not had any complaints. Just like everyone else up here or basically like everyone else up here, Sprint processes our calls pretty much the same way, through best effort. We do not use registration.

Calls are processed through a common queue. The operator or CA consults with the customer, determining the geographic area and the specific need of the customer with respect to the emergency services they seek. The operator uses an automated database to determine the appropriate PSAP number. A call is placed, and the operator remains on the line while the call is being processed, performs the protocol transfer or conversion from data to voice for the customer. A call is never transferred when it's an emergency call processed through relay, at least not that I'm aware of.

The second question was what will we do on January, 2007? As Jay mentioned, for internet relay, the January, 2007, date is not particularly relevant. We'll continue to process calls the way we do today. We are considering and continue to evaluate user registration. However, sprint really doesn't believe that registration is the whole answer. One of the things that we found through focus groups is that there is very little loyalty among users of internet services, whether they be I.P. or VRS. Consumers select what we call a first choice option. That's the provider that they go to first. If that provider is unavailable or busy, they go to their secondary and sometimes tertiary provider until they get the connection within the amount of time that they prefer. So that causes some issues for 9-1-1 services. Obviously, if you place your bets on a registration system, you have to have registration information that's universally available to all

providers. I don't think it's reasonable to expect that a consumer will register with multiple service providers.

Consumers typically don't want to register at all, but if they do, they only want to register once. So if you have issues, then follow it up with a secondary or tertiary provider, that provider is not going to have the information that was available to the chosen or the first option provider. What we have is a need for a concerted effort by all of the interrelated participants in the E-9-1-1 process. I think there are several technical challenges. Some of them are very big, and we need to overcome those if we're going to provide a seamless emergency system, which is also extendable to other internet products which will be here soon. I think that we all probably know that wireless VRS. is not too far away. Registration will not take care of wireless services. So I think we have a couple issues that we want to take care of. The first is as Mike Maddix and others have pointed out, we need to have real time identification of geographic location based on the internet address. That's a critical piece. That will work well with customers who are wire line based as far as internet relay services go.

Secondly, we need to have some type of accessible PSAP architecture that consolidates access for relay. It needs to be more of a consolidated approach where customers enter the PSAP call queue, in the same manner that a call does from the wire line network. And third, probably one of the biggest probably one of the problems that will be bigger than or as big as all the rest, is we need access to wireless geographic location information.

Currently calls that go through relay defeat the geographic location techniques and procedures that are used on wireless calls. The phone doesn't really know where it's at. The network knows where the phone is at. So we have to really find a way to get that information into relay. I think that's critical. So I would just like to close by saying this is really a more challenging problem than registration or direct dial numbers make it seem. Consumers become more mobile, and they take advantage of wireless services. This problem is going to increase in magnitude. It's clear that VRS will go wireless in the not too distant future. We need to be thinking about this and other future services while we resolve today's challenges. >>

Jay Keithley. Thank you, Paul. Kevin, we're running a little over. I will not take your complete three to five minutes away. Please try to keep it to that.
>>
Kevin Colwell (UltraTec) So I get one and a half?

Jay Keithley. No, absolutely not. You get five. But you only get five.

Kevin Colwell. I'm Kevin COLWELL from Ultratec. We're a new player in this arena. First I want to say that I'm in a unique position because today CapTel is not provided via I.P. It is provided via wire line. However, we have developed I.P. methods and I.P. products, and we expect to be providing I.P. CapTel in the future. So we're delighted to be invited and happy to participate in this important proceeding.

First, for wire line service there is one line CapTel and two line CapTel. To keep up with Jay's schedule, I will not go into the details of this. For the I.P. products that we have developed, there are equivalents of both the one line and two line CapTel. When the I.P. version is a two line equivalent, then the network itself transports the call directly to 9-1-1 or to the right PSAP. That network could be the PSTN in the legacy sense. It could also be a VOIP network, etc. Really it is not a problem for the captioning center itself to deal with. The network takes care of the solution. However, in one line implementations, the connection to the PSAP must come from the captioning center. CapTel supports the concept of extending the waiver for 9-1-1 access for I.P. services, and we feel like a complete solution, a functional equivalent solution, should be created. We recognize the consumers' interest through the white paper that was published by TDI and their request for having a complete solution, not a add on solution. We also recognize that there has been a great deal of progress made in the V over I.P. voice providers' network through the coalition between Voice On The Net and the National Emergency Numbers Associations with their I 2 and I 3 proposed solutions. There is progress being made. We would encourage the F.C.C. to watch the progress and adopt rules that use that methodology, along with creating appropriate legislation requiring a national access into that system so that connections to local emergency service can be obtained by remote service providers without having to rebuild a national network.

>>**Jay Keithley.** Thank you, Kevin. Great work on the time. Ann?
>>
Anne Girard (Hamilton Relay) Good morning. I'm Anne Girard with Hamilton Relay. It's a pleasure to be here this morning. Hamilton Relay does provide traditional relay services as well as Internet Relay and VRS, and we are appreciative of the opportunity to share how we handle Internet Relay and VRS emergency calls. We do strongly encourage customers to continue to maintain their wire line and use their TTY for emergency calls. To date, we have not received any complaints about emergency call handling for Internet Relay or VRS calls, and we do process them from time to time. In terms of how we process our Internet Relay calls, we do not employ a special URL, and we are not using a registration system. We are, however, participating with a third party solution provider through a partnership with INTRADO. We handle Internet Relay emergency calls in a similar way to how my colleagues have shared. Our C.A. works with a customer to identify the nature of the emergency, along with their location, and then immediately contacts INTRADO and processes the call by providing information that they have obtained from the customer to INTRADO. Intrado identifies the appropriate PSAP and uses a 10 digit number to make contact. Once that contact is made (C.A. and the appropriate PSAP personnel), INTRADO exits the call, and the call is processed as a regular relay call. We do also include a supervisor in that processing of the call.

In terms of VRS., we are not yet employing this solution, and we look to employ that solution over the next couple of months. We currently do occasionally receive an emergency call on VRS. In that situation, our V.I.'s are contacting 411 and processing the call as best they can in that way. The question in the template was if a waiver is not extended, are we prepared to implement a solution by January 1? Yes,

the solution that I have described in terms of how we're processing Internet Relay calls is the solution that we would implement with VRS, and we do intend to do so. We believe that funding for the research and development for developing and implementing a solution should be reimbursed by the Interstate TRS Fund. We support an industry wide uniform numbering system that could provide unique identifiers for caller location information. And we look forward to a consistent industry wide solution. We are happy to participate in this important discussion today.

Jay Keithley. Thank you, Ann. Thank you all. Now let's turn to the Consumer panel.

Cheryl King. I did want to acknowledge that I have been informed that a representative of the Department of Justice has come. They didn't make it this morning. But someone from Justice is here to listen and take back what they hear and learn. Greg.

Greg Hlibok (FCC) Hello, everybody. It's a really exciting opportunity to all be gathered here and to look at this issue all together at one time. Because we won't have this opportunity tomorrow, next month, and so forth. This is a special opportunity we have today in our lives, and we have the opportunity to meet and discuss on how to save people's lives. In my position as an attorney advisor here, I'm wearing two hats.

Working on legal issues and the discussions here, and then my other hat as a person at home who actually is a consumer of the technology which we're discussing today. At home, I use I.P. based technology all the time, day in and day out, including my television programming over FOIS systems. So that's one issue in which deaf people are ahead of the general population in terms of using I.P. services. I strongly believe that our coming here today is to find a solution that will that will create a positive consequence for us, just as captioning on TV was required and we had focused on that in providing access for deaf people. And as a result, it has benefited the population in general, at large, in terms of people learning spoken English. And so the solution we're looking at isn't only to benefit the deaf and hard of hearing populations, but it helps to the community at large. So I think everyone for coming here today. It is indeed an honor to have the five panelists to hear from the community and having them share their consumer perspective and views on how we can work toward a resolution. I want to first talk about barriers, removing barriers and providing solution.

Sherry Farinha Mutti is the person who came up with the idea of having an even 9-1-1 Summit. I would like to have her have the honor of presenting first. Sherry is the director of NorCal Center for the deaf in Sacramento, California. Next to her is Ed Bosson, and then Rebecca Ladew, a Speech to Speech Relay user from Maryland. We also have Claude Stout, a very familiar face here. And finally Elizabeth Spiers representing the American Association for the Deaf/Blind. I will start with Sheri.

Sheri F. Mutti
Good morning, I am Sheri Farinha Mutti, Chief Executive Officer of NorCal, a non profit, community based organization serving deaf & hard

of hearing persons in 24 northeastern Counties in California. NorCal is one of the 8 member organizations of the California Coalition of Agencies Serving the Deaf.

Eons ago, when Al Gore was promoting the internet as the info superhighway, I had no idea what he was talking about, and now it seems that is all we know and need. Today, thanks to newer technology, deaf and hard of hearing consumers seem to be ahead on the cutting edge using services such as Video Relay, IP enabled Relay via PC, laptop or pagers and more recently internet based captioned telephone.

Such services as Video Relay have become a big hit and more widely used than any other telecom devices because, these newer technological services finally bring us closer to having a more functionally equivalent phone conversation closer to that of a hearing person. In spite of all this wonderful technology, our consumer population still doesn't have access to reach 9-1-1. Directly or indirectly solutions are need to have this access and that is the reason we are here today.

I sincerely thank Chairman Martin and his staff Monica Desai, Chief of CGB and Cheryl King with DRO, for their efforts in putting together this Summit, bringing all the experts, our federal partners DOJ, DOT, and DHS, all in same room with Consumers and the Providers (w/Ollie). Today marks the first time in history that we are taking proactive steps together, working with deaf consumers. I'm emphasizing this point, because, in representing consumers the users as well as the tax payers we need to be at the table working with you all to offer the best services possible. So again, thank you.

Please remember that when 9-1-1 was first initiated back in 1985, we saw the beginning of a very troublesome gap. There was no access to Emergency 9-1-1 via TTY machine to PSAPs who either didn't have one or didn't even know they were supposed to have one. As a result, many deaf people all over the country either suffered or died due to the lack of E-9-1-1 responses to their TTY calls. Complaints were filed with DOJ my own included when a local PSAP in California failed to respond to my TTY emergency involving my injured 3 year old son. The provider hung up on me 3 times, and finally responded to continued calls 3 hours later. By that time I had taken my son to the hospital. I filed a complaint with DOJ, who took my case. The final settlement was used by former Attorney General Janet Reno to mandate all major cities in the US to be in compliance with TTY access.

That was then, this is now, 2006, and we are still seeing situations where E 9-1-1 has failed to respond to TTY calls. Newer technology has surfaced. We see consumers begin to use such services, only to discover they can't get thru to 9-1-1 even using internet based technology. I'd like to share just a few examples to illustrate our consumer needs across various technologies, and keep in mind; this is just the tip of the iceberg.

- A deaf woman in Indiana, using TTY to call 9-1-1 when her husband was going into shock due to a diabetes and kidney failure, no response on 9-1-1, she then sent her daughter to drive a few miles to the nearest fire station for help.
- Last summer, in the state of Maryland, a deaf man smelled strong gas fumes in his home and quickly had his family evacuate while he dialed

9-1-1 and left the receiver off the hook. He grabbed his laptop on way out and after reaching a safe distance used a Video Relay System via *webcam, to dial 9-1-1. He had no luck getting thru so then quickly* tried IP relay. Again, he had no luck getting through. He finally used the internet to look up the PSAPs' ten digit number and eventually reached the local fire dept. During this time, there was never any response to the silent 9-1-1 call he left open when he ran out of his home.

- Just a week ago, a deaf woman was traveling from Illinois to Florida in her car and pulled over to a rest stop with her dog. She was attacked by a security guard who didn't know she was deaf. She tried calling 9-1-1 thru her Blackberry 3 times and got no response. She resorted to calling her son thru the IP relay and asked him to call 9-1-1 for her. When the police arrived she was extremely overwrought and upset!
- In Sacramento County, California, using CapTel (enhanced VCO), I tried calling 9-1-1 when someone was trying to break in to my home at 3 am. After 30 minutes of waiting I called our home association security to ask them to call 9-1-1 for me. Later the PSAP informed me they never knew about CapTel or how to interface that technology with what they have at their center.
- And what about the Emergency notification system? PSAPs currently do not have a way to reach deaf consumers when there are flash floods, hurricanes, earthquakes, tornados and other types of natural disasters. Even "Live News" reporting often does not have closed captioning for the deaf.

The national E-9-1-1 Stakeholder Council of Consumers who are deaf, hard of hearing, STS, industry, along with public safety personnel, wish to see funding support for PSAPs across the board to upgrade their service to include an internet protocol environment compatible with deaf and disabled telecommunications.

These technologies, such as wireless calling via TTY, indirect calling thru relay services like video relay and IP Relay from PC or TV or laptop, SMS capabilities, and / or pager emails via Blackberries or Sidekicks and other types of two way interactive pager devices. Consumers now need preparations for access which has not yet been specified in regulations and policies mandating 9-1-1 accesses. We hope to see the DOJ move forward quickly to make the necessary changes to policies that are 15 yrs old.

I hope in whatever action plan is developed as a result of today's Summit, that we hope to see more consideration given to functionally equivalent E-9-1-1 services by ensuring that connection wait times are the same as for hearing and voice callers today via methods both indirect and direct and compatible with deaf consumers user technology whatever that may be then, now, and in the future. We hope to see requirements imposed on IP users for registration cannot be more burdensome than what's required for non relay users or voice callers. It must be the same, all for one and one for all.

I've explained here and I fear, we need to red flag this as a priority to find solutions ASAP. We need every state Public Utilities Commission to be part of this effort, and support PSAPs nationally, locally, and statewide. I cannot imagine why we wouldn't invest in establishing the state of the art system, with standards, and equal access for all Americans. The time has come where we simply must work

together to figure out the how to's without any more bureaucratic delay! Every second counts. Thank you.

[APPLAUSE]

>> **Greg Hlibok.** Thank you for your comments, Sheri. Next, Ed Bosson, of the Texas Public Utility Commission.

Ed Bosson Give me one second, I am having technical difficulties here. Can somebody help me with this PowerPoint real quick? It is up on the screen, you know. Slide show which icon is slide show here?

Hello, sorry about these technical problems. That is the danger of having a PowerPoint with a laptop that can confuses person. Okay, we are set. A few people already gave excellent presentations on the same issues I had planned to cover, and they had made a few points very well. Nevertheless I will proceed. Obviously, we are now witnessing telecom technology that is evolving into better telecommunication products. We are seeing traditional telecom services migrating into Internet enabled services. We have wireless services such as cell phones, two way pagers, and PDA's that utilize telecommunications services.

In terms of accessibility for people with a hearing disability I use the term hearing disabilities because it covers a broad range of terms that are specific to those who cannot hear.

Direct. when I say direct, it is a person using the TTY or other telecommunications products used by hearing disabilities that directly call to 9-1-1 centers. Indirect would be someone calling through a different service such as relay service providers to connect to 9-1-1. Currently with emergency accessibility, what is available for hearing people is to utilize the telephone networks landlines. I see that VOIP is available as well to call emergency centers.

Wireless products with an emergency beacon are available in most cell phones. I found these products to be particularly interesting. The ability of an emergency beacon is to track persons that have the feature in their cell phones to any location. Basically this is where it gives people two options. One is to have the emergency beacon to be always "on" option on the cell phone.

A second option of the emergency beacon is "off". Only when an emergency actually occurs do they call 9-1-1. I will go into that with additional details later.

For Hearing disabilities to have access to emergency facilities, there are several options: direct landline TTY is one option and also traditional relay services are available - both of these are in wide use now. There is one other option that is relatively new; VRS - Video Relay Service can process emergency relay calls. However, processing emergency calls via VRS is at the beta stage now. They are trying to make those emergency services work more efficient than the current procedure. For Two way pagers, it is very limited on what the two way pager can do in handling emergency relay calls. I know that many people are ready to use it to make emergency calls -- in fact, a few deaf persons already have used two way pagers to call emergency calls.

Captioned telephone VCO services which are the same thing as CapTel. When a CapTel user calls an emergency center, the Captioning service will change over to VCO voice carry over services. The issue of familiarity for hearing disabilities comes into play; that is, do they know how to use VCO since they are used to using a Captioning Service? CapTel and VCO do not use same procedures.

There are technical considerations for hearing disabilities in making direct or indirect connections to PSAP. First, Internet Protocol needs to be standardized for interoperability for Internet enabled relay services so that there can be crossovers by Internet Relay providers in accessing emergency centers. I am happy to see that the VRS and Internet Relay providers are here. FCC has taken steps to make this interoperability work in the VRS environment and hopefully in the near future for Internet Relay as well. Once interoperability is in place for Internet Relay, perhaps emergency centers will be in a better position to handle direct emergency calls from Internet Relay users.

Regarding wireless products, the possibility of ALI automatic location identification that is currently used for the regular landline network this ALI should also apply to wireless services as well.

Next is emergency beacon locators. That is where the use of GPS global positioning systems - will be able to locate the whereabouts of an individual - this should be applied to all wireless products be it pagers, PDA's, or, computers.

Now there are different ways to identify the locations of where the persons are. One is to use cell towers and other way is GPS. Another way is some sort of hybrid interface between the cell tower and GPS. The latter is the part I do not fully understand, but if it proves to be practical, it could apply to wireless products used by deaf persons as well.

The routing procedure probably needs to be standardized as well. For example, in terms of automatic callback, this feature would be very critical for Internet Relay calls. I know that one VRS provider can provide callback services; that is a good thing, and we need to encourage that for emergency calls made through Internet enabled relay services as well.

Also, regarding instant database identification: Paul Ludwick and I are at odds on this registration issue. Registration would provide an immediate database identification, so that if anybody called over an Internet provider, they would not have to say, I am calling from Texas or Austin, Texas, and I live at such and such a location. That is a good two, or three minutes worth wasted. With an automatic database identification via a registration the database identification would show the information and dispatchers would then ask appropriately: is there a fire, are you hurt, and more appropriate services could be provided immediately without delay.

In regarding interoperability, this has been applied to VRS. Instant Messaging -- interoperability should be enforced as well. Right now there is not a crossover in terms of interoperability for IM. I know that there is proprietary information at stake, and I did not know how

that issue would be resolved. But it needs to be looked at because it is very important.

I keep bringing up this point of direct and indirect connection because all of the standards are applied to both. In terms of standardizing 10 digit phone numbers for deaf persons that needs to be established so emergency centers can access to these persons if needed.

Emergency call processing itself and by that I mean whatever service is being used, there needs to be standard procedure in place. That is why I support a registration as it will help establish a standard procedure. Otherwise, how would we know that person's address or whether a person is in danger or not.

Having that database available, dispatchers could instantly identify where a person is rather than processing the call and asking them and soliciting that information that otherwise could be obtained from database. The emergency beacon feature has some issues regarding privacy. If someone has a pager, they usually do leave it on all the time so the GPS would be activated in that device. Let us say somebody died, or there is some sort of medical emergency and they cannot make a call themselves. A pager with GPS would eventually be located and the person found.

Alternatively, those persons who had concerns about privacy who wanted to keep their information private can invoke GPS only when they make 9-1-1 calls thus it would still offer them a way for 9-1-1 calls to pick up on that GPS identifying information. I keep emphasizing that there needs to be standard put in place for processing emergency relay. Relay services are unique in that dispatchers are working with a third party, or it involves three people. You have the communications assistance or the video interpreter connected to the call as well as the consumer. It is a three way conversation that is being set up with the emergency dispatcher. So again, we want to make the procedure as transparent as much as possible. Regulations do require that, but in terms of an emergency situation, it becomes more sticky.

The rules of relay services should be waived for an emergency, so that the video interpreter or relay agent can take over, so to speak, and make the call more efficient and ensure that the emergency dispatcher understands what is going on and what is happening in that situation.

In conclusion, I strongly believe we need to encourage the initial process by involved parties in identifying the needs of persons with disabilities in processing emergency calls. There needs to be well thought out product design and service management. Perhaps set up a national standard and national jurisdiction for processing emergency procedures. Perhaps having a national funding to jump start the program for emergency procedures. Development and planning procedures need to include feedbacks from consumers, TRS providers, telephone companies and emergency organizations. Thank you.

Greg Hlibok. Thank you, Ed. Next I will turn the floor over to Claude.

Claude Stout (Telecommunications for the Deaf and Hard of Hearing, Inc. "TDI") >> I am probably going to need some technical assistance with

the laptop for my presentation. I think maybe this is the first time in history that we have deaf people who are actually changing the song actually playing musical chairs, as it were.

It is good having everyone here and meeting with everyone this morning. Sherri spoke about consumers and what their needs are and the frustrations they experience. Ed did a wonderful job explaining technical accommodations and what we can see that are actually meeting what consumers need. This morning we want to try to discuss the policy and the barriers that we have experienced in the past and how we can maximize this movement and move forward to make this an effective as far as policy and processes.

As some of you, Sheri and Ed and I spoke actually today, and we are faced with the reality that the deaf and hard of hearing community are not using their TTYs and it is actually becoming obsolete. There is an increasing use of what is called by many IP based technology. Those devices maybe used through I.P. relay, VRS, or pagers and things of that sort. One other reality we must be aware of is that the 17,000 PSAPs nationwide, the PSAP's all over America, are expected either to be TTY compatible or VRS compatible. They're not required to change their systems or equipment to become compatible with I.P. technology and the increasing use of I.P. technology by the deaf and hard of hearing communities. I want to mention the importance that everyone needs to keep in mind, when we asked for full and effective E-9-1-1 access, I am not only speaking of myself as a deaf consumer having full and appropriate 9-1-1 access, but when it is to be capable to help other people in need.

We are first class American citizens. Many of us have hearing children, many of us have hearing parents that we are actually taking care of at home. They could possibly get themselves and an emergency where they cannot help themselves, so we are in a position where we have to help them. The White Paper that we have provided here today talks about the E-9-1-1 stakeholders. We are encouraged by some of the emerging industries, recognizing that there are some possibilities and some technical improvements and the E-9-1-1 services.

We ask any technical improvements you make in the future, that you make them as flexible as you can. Because in the future you may have to have accommodations. We do not want to be in the experience like we were in the past where we were stuck with either a TTY or a VCO. From what we experience, technology will not be the same five years from now or 10 years from now. We need to have an effect of accommodation, effective of flexibility.

I want to commend the FCC and the leadership effort on this E-9-1-1 Disability Access Summit. I want to thank Chairman Martin for his commitment on these issues. Again, I want to thank Monica Desai and Cheryl King for their leadership efforts in providing the Summit today and having everyone here. The FCC, as many have mentioned, is starting to ask VRS providers about their E-9-1-1 capabilities, and I applaud that, but I also want to consider the technical enhancements to actually piggyback on those efforts from VoIP providers. To actually make our accessibility of services and our accessibility to 9-1-1 effective. We have already mentioned the technology that we can actually use to access E-9-1-1. While we are working with VOIP

providers, several plans happen. To make an E-9-1-1 call to a PSAP and with our geographical location, not only that we are able to make this call and actually be connected to that 9-1-1 Center. I think in the near future and possibly beyond, I think it is possible that on a federal level or state level or local level, that the people here in the disability community need to be involved in the public administration policy making process. Maybe having a seventh NRIC, that therefore could actually work on E-9-1-1 future issues.

We do have recommendations for the future to this access, but this does not include or cover the needs or issues of people who are deaf and hard of hearing. However, the report from the Network Reliability and Interoperability Council ("NRIC"), I do not want to lose those recommendations. It actually suggested interesting examples. Say I am using VOIP or some kind of technology. I can actually make a call to the 9-1-1 center, the PSAP. They can even actually access what the building was through them video monitoring system and actually able to identify me and what my situation was, which is wonderful. Those are some of the possibilities in the emergency response to be able to help us, other than just responding to the call itself. Consumers also want to commend the VON Coalition, NENA, who actually provided us with the i3 solution.

Three things we need to do it:

1. is dynamic location of record.
2. the ability to handle mobile consumers better on the go.
The third is interoperability between the PSAPs.

I think it is important for everyone to think about and discuss this afternoon, not only discuss what consumer needs are, not only discuss the flexibility options and technical parts what we need to really look at and remind on a national local and the White House how we need funding and support, and it is important we have adequate funding for all 7000 plus the PSAPs in the USA to enhance who responds to 9-1-1 access. There must be a political will, a political incentive to make things happen. Obviously the regulations need to change here, with the FCC, the part of justice and other federal agencies and other state and local governments.

I want to encourage the White House and the Domestic Policy Office to actually meet with the policy makers. We as consumers, we do support and encourage. We support and encourage this level of service and will want to encourage businesses to be innovative in their solutions, providing full access to E-9-1-1. We want all of you, hopefully, during this meeting to start this process and all of you to continue to be cooperative in this effort to be at the White House, the FCC, Homeland Security, public safety answering points, Department of Transportation, businesses at large in all to work cooperatively with the consumers as well.

And we thank the leadership of the Commission, the White House, and have that affect not only the federal but also the state and local levels as well. Because we not only have to work from the top down, but also from the bottom up. So that it does reach the federal level and then disseminate across the population at large. PSAPs working in conjunction with fire, police, an emergency hospital services. We would

like to propose at the White House look into providing a national conference on E-9-1-1 and addressing these needs. And the reason I say that is because we are here today, but, please, we have the I.P. providers here, panelists representing the consumers, and I do applaud the people involved here who came, took a timeout to come here, where are the national leaders people from the disabled community are here, but where are the national leaders, international leaders? Where are the police chiefs and the like? We need to draw more stakeholders into this bigger picture.

There are eight different recommendations I have listed here. And there really are consumer expectations I would give to you, to industry, to government, business providers, and all of you to work together.

First, is the next generation of 9-1-1 systems must include disability access.
Next, at short and long term solutions for e 9-1-1 access for people with disabilities, and that is led by the FCC.
Thirdly, interoperability of I.P. text Communication for e 9-1-1 access. Fourth, we need to address Internet protocol numbering issues. Fifth, and this is very important a funding issues. I strongly encourage the FCC to allow the use of both the state funds as well as in trust state funds intrastate funds to begin locally identifying areas to locally identify selective writing and other TRS features 49-1-1.

Next, I count on the Department of Justice and the FCC to bring up regulations to make this E-9-1-1 system work with the PSAP's. Including mentioning the other technical parts of the regulations passed the part of justice, for the PSAP. Funding for funding for the upgrading technology to ensure equal access for emergency services.

And finally and this is very important Congress needs to find a way for all national, state, and local governments. This is an issue for all PSAP's funding to be there. And Congress needs to ensure us that those funds are specifically earmarked for the PSAP's and not used for other purposes. I would like Congress to put a mechanism into place where funding, whose purpose is for the PSAP's is not misused or diverted into other purposes.

And I want to close by saying, that all of us should keep in mind the hundreds of deaf people who died because they did not receive emergency services and a timely fashion and thousands of deaf and hard of hearing people who were injured or had a long recovery experienced due to lack of adequate services. We, the consumers, want to thank all of you for coming together, and right now, I do not want to take up any more time. But we need to work on resolving these e 9-1-1 issues not only for today but for the future and years to come. Thank you.

Greg Hlibok. All right, it appears as though our time has run out. I would like to move on quickly, then, and proceed to Rebecca Ladew then finally to Elizabeth Spiers. And we will hold questions until the Roundtable discussion later on this afternoon. But, thank you for covering all of these issues already.

Rebecca Ladew (STS User)

The ability and freedom to communicate with others, whether spoken or written, is something most take for granted. People with communication disabilities were not able to communicate outside of their world until telecommunications relay services came along and made the use of the telephone possible for them. Now they can take care of routine matters such as making doctor's appointment, making business calls, calling friends and relatives independently. Telecommunications relay services have made even calling 9-1-1 for emergency situations possible. Two relay services that people with speech disabilities can utilize are Speech To Speech Relay and Hearing Carry Over Relay. With Speech To Speech Relay, you can use your voice and hear at the same time, but have a communication assistant revoice what you say verbatim like real time telephoning. For Hearing Carry Over Relay, your voice is not heard but you can hear the party you are calling, and you type back to the communication assistant what you want to tell the other party. A TTY and a speakerphone is used for this type of relay service. People with speech disabilities have two things going against them with speaking and those are: having trouble speaking, and being understood. Therefore, it is with much hesitation that speech disabled individuals are willing to use a telephone. There are many varieties of speech disabilities, and many speech disabled individuals have other disabilities as well. Some use wheelchairs. Some speech disabled individuals do not have the cognitive or manual skills to use a telephone or a computer keyboard. Specialized training in daily activities such dressing, feeding, etc assists those individuals who lack the cognitive skills. For those who lack the manual skills, a pointer or a stick is used to strike a key on the computer keyboard. This same method is also used to dial in number on the telephone. Also, switches may be used to manipulate signals on a computer screen. Most use a variety of adaptive equipment for communication. There are many varieties of sophisticated communication devices such as those where you can program a whole speech/presentation, and then with a press of a key or switch the speech/presentation is communicated via computer speech. You can connect this particular device to a cell phone for a direct call using certain programmable keys for certain conversations - for example "Hey! How are you?" This method eliminates the need to use the telecommunications relay service and the need of a third party - the third party being the communication assistance. Those speech disabled individuals who lack cognitive skills use simpler communicative devices that use just pictures or signals.

Assessing speech disabilities and 9-1-1: It takes an enormous effort and time for a speech disabled individual to communicate. Usually, time is of the essence when someone is trying to access 9-1-1. A speech disabled individual, just like most people, becomes more excitable and frustrated in an emergency situation, but this excitement makes their speech even more difficult to understand.

In some situations, a speech disabled individual can call 9-1-1 directly without using a relay service and simply leave the phone off the hook. In other instances, an individual with a speech disability may need to access 9-1-1 through speech to speech relay in order to specify the type of help needed. Time is not quick enough when you have to access 9-1-1 by dialing speech to speech relay and making the communication agent understand that this is a 9-1-1 call. Dialing 711,

the national call member for telecommunications relay services, takes *longer because the 711 operator may not understand that a speech* disabled individual is calling. Unfortunately 9-1-1 operators are not trained to respond to calls from people with speech disabilities. It would not be cost effective to provide speech to speech training with all 9-1-1 operators nationwide, given the limited use by speech disabled individuals. A more cost effective approach would be to educate speech disabled individuals nationally how to access 9-1-1 directly or through speech to speech relay when an emergency situation arises. Thus, a prerequisite to the emergency access training is to teach people with speech disabilities to use Speech To Speech Relay. This leads back to the necessity of developing Speech To Speech training in the 40 or so states that lack such training programs. However, 9-1-1 operators need to know about Speech To Speech Relay, and if they cannot understand the caller, the operator should direct the caller to call back using Speech To Speech Relay.

The following are typical barriers faced by people with speech disabilities:

.1. Many individuals with speech disabilities do not have telephone equipment that they can use at all. They may need a speakerphone, handset, or TTY. They do not know where to obtain or request the necessary equipment they need for making a Speech To Speech Relay call. If they do not have access to a phone or the necessary equipment to make a call, they cannot call 9-1-1.

2. Family members or caregivers sometimes forget to place a phone in reach of an invalid or wheelchair bound individual that has a speech disability. These individuals then have no accessible way to call 9-1-1.

3. Many speech disabled individuals lack the dexterity even with special equipment. If special equipment is not provided for special needs, there would be no access to 9-1-1.

4. Many speech disabled individuals lack the cognitive skills to identify an emergency situation.

5. Some speech disabled individuals cannot afford to have telephone service.

6. If a speech disabled individual had to access 9-1-1 via Speech To Speech Relay the E-9-1-1 call may not be handled appropriately because (1) the call wait answer time may be too long or (2) the E-9-1-1 operator may not be able to understand the speech disabled individual.

7. Many speech disabled individuals do not think that the 9-1-1 Operator will understand them, and they do not know that they can access 9-1-1 relay. They assume that 9-1-1 is not available to them.

8. Public telephones are often not wheelchair accessible, and many speech disabled people use wheelchairs and therefore cannot access 9-1-1.

9. Public telephones are often in noisy areas, and speech disabled individuals are often more difficult to understand when there is background noise, therefore the speech disabled individual may be

unable to complete a successful 9-1-1 call.

Some preparedness suggestions and solutions are as follows.

1. There must be a national outreach program explaining extensively all relay services to the public as well as the speech, hearing, and hard of hearing communities.

2. An emergency community center should be set up to identify who is deaf and/or speech disabled. Neighbors volunteers would look out for neighbors who are disabled and/or elderly.

3. People who are nonspeaking should consider wearing a medic alert bracelet. These should carry a basic message, for example, "I cannot speak but I can hear. I use a symbol board/AAC device (etc.) Please try to take my communication device with me."

4. It should be mandatory that hospitals, at least in major centers have a symbol board in the E.R. If the deaf community has interpreters, revoicers should be provided in the ER for people with speech disabilities.

5. 9-1-1 center call takers should be familiar with speech to speech relay calls and educational programs. If someone with a speech disability cannot be understood by the operator, the operator should know to ask them to call back through speech to speech relay.

6. People who have a communication disability should have some kind of signal light that would help locate them.

To sum up what has been said, and looking towards the future, all Americans need rapid response from first responders. Therefore, all stakeholders in the provision of emergency number services must be committed to find and implement short term and long term solutions to ensure those who are deaf, hard of hearing or have a speech disability can summon emergency services when needed.

Greg Hlibok. And finally, Elizabeth.

Elizabeth Spiers, American Association of the Deaf Blind
Hello, everyone. Can you hear me OK and see me all right? It's an honor to be here with you today. I am with the American Association for the Deaf Blind. It is a national organization made up of people who have combined vision and hearing loss.

I would like to explain a little bit about what the deaf blind community looks like. The word "deaf blind" does not necessarily mean that the person is completely deaf and completely blind. We do have some members who have little or no usable vision and hearing. Most of us, however, have some usable vision and hearing. For example, a person may be deaf and have little or no peripheral vision. However, he may still have enough vision to see other people's signs and read printed material. Another person may be blind or visually impaired and hard of hearing. That person may be able to use a cell phone or landline phone with an amplifier. Another may be hard of hearing or deaf and have low vision. She may be able to read a pager or computer with large font. We have a wide variety of people with combined vision

and hearing loss, who vary widely in their communication preference, educational background, and educational and vocational experiences.

What this means is that many of us can benefit from equipment and services for deaf and hard of hearing people, and/or for blind or visually impaired people. Some of this equipment can be used with modifications for our vision and/or hearing.

Most of us use Internet relay services in our pagers and computers. For example, many deaf blind people have enough vision to use pagers (some pagers have larger font for easier viewing). These pagers have built in relay service providers through their Instant Messaging features. However, deaf blind users face the same problem as deaf and hard of hearing users—they cannot call 9-1-1 on their pagers. If the technical problems can be fixed with internet relay providers so that people can use them to call 9-1-1, then many deaf blind people will be able to use pagers to call 9-1-1 services.

Many deaf blind people use computers for communication, and prefer to use Internet relay services, or TTY software such as Nextalk. This is especially accessible for people who depend on Braille. They can access information through a computer with a Braille display. Others who depend on large print can modify their computer software so they can make telephone and relay calls using large print font. Again, they cannot call 9-1-1 using Internet relay service providers because the technology is not in place. If this problem can be addressed, many deaf blind people—especially Braille screen readers—would be able to call 9-1-1 using Internet relay services via their computers.

Another method that deaf blind people use for telephone communication is video relay services (VRS). Again, this is an Internet based service. It is especially popular for those people who prefer to sign their conversations rather than type their messages. People who use ASL as their native language tend to use VRS. Again, they share the same problems as deaf and hard of hearing people—they cannot call 9-1-1 using VRS. This is another technical barrier that needs to be addressed.

Cell phones are another way to contact 9-1-1. People can now call 9-1-1 on their cell phones because it is possible to identify their exact location and where the cell phone call is taking place. People who are hard of hearing or visually impaired, or who are hard of hearing and blind can use cell phones to call 9-1-1. Most cell phones are hearing aid compatible now. Many cell phones have large print fonts or can be used with magnifiers. Also, cell phones can act as pagers for deaf blind people who use Braille. A cell phone can be matched with a Braille Notetaker, and deaf blind people can use the text messaging function to receive and send pages. However, it is not yet possible to call 9-1-1 using a text message function because there is no way to verify that an emergency provider received the call, and they may not respond to the message. Also, the message can be delayed. This is another technical issue that needs to be addressed.

We are dealing with other barriers that may prevent deaf blind people from using E-9-1-1 even if the technical problems are solved. For example, it is difficult for some deaf blind people to use VRS because they have a hard time seeing the interpreters' signing. Many VRS

interpreters are not trained to work with deaf blind callers. Some deaf bind people need people to sign in a smaller space to accommodate their restricted vision, or to sign slower than normal to accommodate their vision problems. Also, it is easier to see signs if the interpreters wear high contrast clothing. Many VRS interpreters wear inappropriate clothing that make it difficult to see their signs. AADB is now working with relay service providers to address this issue.

Another barrier that we're finding with pagers is that some deaf blind people cannot use them because the fonts are not large enough. Pagers now go up to size 14 font. Some deaf blind people need size 18 and larger fonts to use pagers effectively. That is another issue that AADB is working on with pager manufacturers.

Another issue in the deaf blind community is that quite a few are not employed or may be working part time. Many rely on government assistance. They may not be able to afford some of these technology services like a cell phone, text pagers, and cable for VRS. They may not be able to use E-9-1-1 even if the technical problems are fixed.

Most deaf blind people can use large print or Braille TTYs on their landline phones to access 9-1-1. However, sometimes this equipment is hard to replace or repair them. They are very expensive, and hard to repair if they break down. Also, some deaf blind people cannot afford to replace or repair TTYs or Telebrailles. That limits their access to 9-1-1 systems.

Training still needs to be provided to emergency responders. As an example, I'm going to share with you a story. One woman who is deaf blind lives in North Carolina. She had an emergency, and called 9-1-1. The police came to her apartment. She had a doorbell, but they didn't push on the doorbell signaler; they knocked on her door. She didn't hear them and didn't respond. The police left. She called 9-1-1 again, and the dispatcher told her she had already sent the police. She agreed to send the police officers again. They came to her apartment and, again, knocked on her door, instead of ringing her doorbell.

Training first responders is also a priority so they can work with deaf blind people more effectively. AADB and Telecommunications for the Deaf, Incorporated are working together to provide training to the first responders so everyone has access to 9-1-1 and so there's education to the first responders.

In summary, people with both vision and hearing impairments deserve the opportunity and access to E-9-1-1 and 9-1-1 services that everyone else receives. Thank you, very much today for your time.
\[Applause]

>> **Greg Hlibok.** Let's give them a round of applause for this wealth of information, and I want to thank you, so much for this information. [Applause] And now to you, Cheryl.

>> **Cheryl King.** Thank you Greg and panelists. As you are aware. We're 30 minutes back on our agenda. So let's take a 45 minute lunch break. There are two restaurants in our building. They are both accessible off the courtyard level. There's a deli outside on the street. Please

feel free to get your meals to go, and bring them in here, and you can visit and be here on time for us to start in 45 minutes.

>> **Cheryl King.** Welcome back from our lunch break. We have found a lost visitor's badge here. I think you can get out of the building without it, but just in case, if you have lost your badge it is up here at the front table. Good afternoon. I hope that you all had a good lunch but not so good that it will put you sleep.

[Laughter}

Cheryl King. I'd like to take this time to thank our interpreters. They've done a great job. Thank you so much. Also for the presenters, if you haven't emailed me your power point presentations, email a copy or give me a hard copy. We are filing the proceedings of the day in our open docket. So we want to get that good stuff in there. Housekeeping over. I'd like to introduce Dana Schaffer who is with our new Public Safety and Homeland Security Bureau who will moderate the Solutions Panel.

Solutions Panel

Dana Shaffer.

Good afternoon. Thank you for allowing me to be here. It is a real privilege. It occurred to me earlier today and in conversations I've had with many of you, Claude and Cheryl and many of you that we are not talking about unique needs. We all have the same basic need. Pick up the phone and dial anyone, with a reasonable expectation of reaching help. We are talking about unique challenges to getting there, but I think that, I heard a lot of people talk about unique needs of those with hearing disability or the disability community in general. We are all the same in terms of our fundamental needs. Unique challenges of getting there. But Ironically as technologies converge, we're all going to be affected by the same challenges. First of all, I have learned that we will all be touched with the problem of hearing loss either directly or someone in our family. It has proven out they are all touched by that issue. But also as technologies converge we're going to see the same problems of lack of architecture. The same problems with how do meet the need of locating people in times of crisis when they are all using I.P. based technologies for communications. It is not just an Internet-based relay problem, it is going to be a broadband problem. We are all going to have to work together to solve these problems because these challenges are going to affect all of us.

And so I cannot thank you enough for allowing me and folks in my bureau to help be part of the solution. The new Public Safety and Homeland Security Bureau takes very seriously the commitment. It is a nonpartisan commitment. It is not a Debatable commitment of this agency to ensuring meaningful, effective access for every American. So I thank you for having us here today. I'm going to introduce, as they come up to speak and hopefully we'll have some time left for questions. If not I've been assured we can keep them in the hot seat for the Roundtable. I saw people had some questions. Mr. Brick, I know you had some questions. So if you don't come in our panel, we'll have time during the round table discussion. We are going to start with Brenda Kelly Frey.

Brenda Kelly Frey (MD Relay) And thank you for convening this 9-1-1 Summit. And we are able to bring together all of the stake holders, the consumers and those of us who are in 9-1-1 to get together and find out information, find out other people's needs and share information among ourselves. I'd like to begin by introducing myself. I am the director of the Maryland Relay Service. I am a CODA, for those of you who don't know what that is, I'm a child of deaf adults. Still considered a child. I have lot of friends who are DEAF.

Public safety is near and dear to my heart. It always has been and always will be. I try to make sure that my participants are not going to be frustrated by calling 9-1-1 and not getting their call in an appropriate manner. In the previous position before I was the director I worked in outreach for Maryland relay. I did public relations. In that capacity I had the opportunity, the fortune to meet a lot of the 9-1-1 centers by getting involved with their meetings, the Maryland emergency management meetings. I attended their meetings on a monthly basis. I went to various functions. I felt like I was part of that entity even though I was not. I participated in training at the 9-1-1 centers in. Maryland we are very fortunate we only have 25 PSAPs. That is unique in that there are many other states in the nation that have many, many more PSAPs that they have to cover. I gave each one of those states individual training in how to directly receive calls from people who are using TTYs.

I also taught them how to accept relay calls, indirect as we have mentioned today direct calls versus indirect calls. I did that in that capacity as an outreach manager. I took a TTY with me everywhere I went. Every place we went for outreach, and we covered the whole state of Maryland I'd pull over and I would make a 9-1-1 call. Now, this was based on a prior agreement with the 9-1-1 people. I would make test calls and I'd keep the tape and I would go back and write a letter in favor of what would happen during my call or suggestions how to improve the processing of calls. I did a lot of training with the 9-1-1 call takers. I recall one time when I went to the eastern shore to attend a meeting and I happened to have a voice carryover (VCO) phone with me. That was new on the market. I was talking about the new technology. I.P. based services but back then I was talking to them about UNIphones.

When I left that meeting, they had been only used to processing TTY. calls. They did not know about VCO. This they did not have a clue between voice and TEXT on the same call. They told me I had to go back and take all of the VCO phones away of all of the people that Maryland had distributed and stop manufacturing that particular phone. You can imagine my surprise. And disgust as well. When I left that place I called my boss, and I told him I felt like I had just been crucified. I felt like someone had beaten me with a whip but I wasn't bowing out. I decided a week later to call a PSAP and learn how to become a call taker myself. I figured there's got to be a way that this would work. I learned how to be a call taker and now because of that didn't have to withdraw our giving away VCO phones and they are able to tell between TEXT and voice. They taught how to call back customers in case the call was disconnected. Silent calls, I happen to develop along with the Department of Justice on how to deal with silent calls -

A call comes into the 9-1-1 center. They say hello. There is no response. They say hello. There is still no response. What do they do at that point in time? The answer was they dispatched something or someone to that particular location. I have attended meetings, emergency management association meetings as well as NENA being involved with the NENA, the National Emergency Numbering Association. I'm fortunate that Maryland has staff that enables me to do that kind of work.

There are many relays throughout the states that do not have sufficient staff to do that training. I participate in the National Association of State Relay Administrators (NASRA) meetings and always encouraged the members to if they can to develop some kind of relationship with the 9-1-1 call centers. The 9-1-1 centers have weekly tests of their TTYs to make sure their machinery is up and running and working properly. If not they know they have to do some repairs. Unfortunately the quality of PSAPs these days seem to be based on the jurisdiction and the revenues found in each particular jurisdiction that is allocated for 9-1-1. I don't believe there is a big pot of money out there that the centers can draw from to enhance and improve their call centers. I would strongly encourage the grant process not be adopted in that it would be soft money and I would only recommend that we have hard money to make all of the call centers the same exact way.

In Maryland, our Maryland Relay operators are trained to handle and process emergency calls. They have been trained how to handle emergency calls. There is a Supervisor on all emergency calls. We also provide American Sign Language (ASL) to English and translation services and the translator is there to be able to translate the call. Our operators are permitted get out of the transparency role when on an emergency call. For regular relay they are to remain transparent to the call. However, in an emergency, they have been asked to call 9-1-1 they are able to get out of the transparency to facilitate that call.

There is information that is gathered by the operators during that call and even setup is happening. The location and the nature of the emergency and in fact they are suggested to get that in advance. The operator stations have the emergency call procedures posted right there because they feel the emergency of the caller so they want to make sure they are following the proper procedures.

The Maryland Relay centers have telephone service priority (TSP) for priority restoration in the event of a disaster. Maryland was the first in the nation to get this TSP designation. I thank very much the F.C.C. fro allowing us to get that status and now all centers across the country have that status.

I am involved with homeland security within the Department of Disabilities which is a cabinet level department within the state of Maryland to make sure that communication needs of the deaf and hard of hearing and speech disabled individuals are met in an emergency.

The state of Maryland has also delivered in the middle of the night, to hurricane victims, TTYs so they are able to communicate in the emergency center because maybe their TTY was taken away by the storm. Thank you very much for inviting us and good luck on your efforts. >>

Dana Shaffer. Now, from KPS Consulting, Karen Peltz STRAUSS.

Karen Peltz Strauss (KPS Consulting) Thank you very much. It's a pleasure to be here. I just have to say I'm delighted that the agency is doing this. The consumers have spoken out and the agency responded and Cheryl and Jay and Greg and Tom you have been terrific in agreeing to put this on. It didn't take much pounding on your door. I really want to thank you for that. I have a couple of slides on the early years. I always like to do a little bit of history first.

Sheri Farinha Mutti did a great job in talking about the past and how difficult it has been for people with hearing loss to get access to emergency services. I do want to mention, that although the Americans with Disabilities Act requires direct access and that Act for now requires TTY access, the language of that Act leaves the door open to using other technologies for such direct access. This is really important.

I understand there is a representative from the Department of Justice here. The legislative history of the ADA modified Title II of that Act. Title II requires state and governmental offices and departments to make their services and programs accessible to people with disabilities. As part of the prohibition against that discrimination in local and state programs the legislation history made clear that Title II requires local governments to ensure that telephone emergency number systems are equipped with technology (and this is old language) that will "give hearing impaired and speech impaired individuals a direct line to these emergency services." The legislative history goes on to say this initially will mean installation of a TDD or compatible ASCII or Baudot computer modems (again, old technology), but that future technological advances may offer other means of affording direct and equally effective access.

This language is really important because it shows you that even at the time that the ADA was being passed, even at the time that this requirement was put into place, Congress made clear that it did not want to limit technology to that which existed at the time. It really wanted to be forward thinking. (As an aside, emergency access via the ASCII format is no longer required for technological reasons.)

Unfortunately, as Sheri described, there have been a litany of tragedies that have occurred when 9-1-1 centers have been unresponsive to deaf and hard of hearing callers. This has been going on for years and years. It went on before the ADA was enacted and even after the Act was passed. For example, the day after the Department of Justice released rules implementing the ADA, a massive class action law enforcement on behalf of hard of hearing people against New York City was filed, alleging blatant disregard of the city's 9-1-1 obligations. Only a few months later, a Dallas woman died. After that a lawsuit was brought in Florida against the township of Travares, and after that, DOJ started stepping up enforcement. A real turning point occurred in California, when Sheri brought a complaint after her local 9-1-1 service failed to respond to her emergency call (when her toddler fell off his bed and injured his head). Her complaint prompted DOJ to begin bringing compliance reviews in different cities and towns, to obtain compliance with their 9-1-1 obligations. Again, I raise this only to show how common it is to fail to provide emergency access and why we

can't let this keep happening. The next SLIDE, too, shows more violations.

There is something called project Civic Access, under which the Department of Justice is continuing efforts to conduct these compliance reviews. Unfortunately most of them are still linked to TTY access; that's why we have to move on. In March of 2000, in part because of the frustrations and inability of deaf and hard of hearing people to get access directly through 9-1-1, the FCC revised its relay rules to strengthen them and, as Tom mentioned before, to require providers to immediately and automatically connect emergency calls with emergency 9-1-1 PSAPs. This is possible because the operators have the callers' numbering information, and so they know where the caller is coming from. As we all know, by contrast, there are exemptions right now in place for IP based relay because it is not currently feasible to automatically obtain location information. But many feel these exemptions are hurting people as each day passes because this is the kind of telephone technology upon which people are now becoming reliant.

As mentioned here today, the reason I discussed some history is because it sets the stage for the solutions panel. Whenever one looks at communications access issues, one must look at what has been done for the hearing population; this is what must be done for the deaf and hard of hearing population as well. We have a situation where all interconnected voice over IP (VoIP)providers must transmit 9-1-1 calls to local emergency authorities and they must include the call back number and the location of those calls. When you read the FCC's Order mandating such VoIP access, you see that this came about because of a consumer expectations that telephone services that interconnect with the PSTN would similarly be able to contact 9-1-1. The same thing holds true for telephone services used by the deaf community. We see people who are accustomed to using traditional relay services wanting to access 9-1-1 over IP based services. Those people are occasionally calling VRS and saying, "connect me with emergency access." This is only natural, as this is one of the things that the telephone is used for. They think, "I'm used to relay being able to forward my calls to 9-1-1, so I'm going to continue using these services in this way." The FCC now has a pending rulemaking that asks about how these IP based relay providers can continue to offer emergency access to their callers.

So what are some solutions? I'm going to throw some out. I'm doing this presentation in part in conjunction with Gallaudet University's Rehabilitation and Engineering Research Center on Telecommunications access. We chatted about some possible solutions with them. One possibility for emergency access via IP relay is to have a centralized system, rather than the systems we heard about this morning. This would be one center -- not necessarily one physical center but one entity -- operating emergency services by a neutral third party, perhaps chosen by competitive bid, and funded through the interstate relay fund. Some stable funding source is necessary. It can't be something that is subject to the whims of the federal budgetary process. It has to be stable and consistent. Callers could possibly access this centralized service through an independent web link or the through the websites of individual providers so those providers could keep their own websites. Everybody would have a separate link. Or one might be able to go to a

link in addition to the regular relay services - i.e., this would be a separate emergency link. In sum, one possibility is having a separate IP/VRS emergency center or separate emergency link to IP based providers. Possibly these centralized entities could be used for other kinds of relay services as well.

One of the advantages of a centralized system is that we would be sure to have skilled CAs/interpreters, as well as people trained in emergency access who know what they are doing. We could also establish answer speeds different from what is established for regular kinds of relay. Immediate access obviously would be required. No one seeking emergency assistance should have to wait at any point. Also, we would be able to track standards of performance.

However, there are some problems with a centralized system and we have to take those into account as well. For example, if you have interpreters in a central center, are they going to be under utilized? Are they going to be idle while waiting for calls to come in? What if there is a massive emergency and there aren't enough interpreters? These are some considerations. And then there is also the consideration that we have all been talking about - which is the ultimate concern - location tracking, like that which is required by VoIP providers. I know that there is considerable debate over whether user registration should be operational or mandatory; this is one of the main questions. At least for the primary location, I think there are benefits to it. Then again if we have GPS or some other technological enhancement that eliminates the guesswork in locating callers, that would be better. In the meantime, some information about the callers' location could be collected by individual or collective providers.

Option number two would be individual provider access. We heard this morning that Sorenson is using calling priority. Should all VRS providers be using calling priority to bring callers to the top of the queue? What sort of policy implications does that have? Right now the method of answering VRS calls is first come, first served.

Whatever method is selected, one of the most important things is to achieve consistency for consumers in the response to emergency calls. Consumers have to know that every provider is going to answer their calls in a somewhat consistent way. Efforts to achieve efficient call handling bring a whole slew of concerns about reliability with respect to identifying emergency calls. Again, with option number two, the same issue arises with respect to location tracking, also the same issues arise with respect to registration for mobile calls and funding.

The last issue I want to mention is numbering. The basic problem is that dynamic IP addresses make return calls problematic. We have to obtain a uniform numbering system so that emergency centers can call back people for calls made over the Internet. At present, call backs are difficult. To let you know where this stands right now, in November 2000 a request was made to the North American Numbering Council for VRS dialing uniformity. This issue has since been assigned to the industry numbering committee of the Alliance for Telecommunications Industry Solutions. They have dedicated study to this as "Issue 510," and are now evaluating methods to provide users with phone numbers and data base solutions for interoperable numbering

capability, so that individuals will be able to call each other and any VRS or IP providers. I'm going to stop there.
Thank you very much.

Dana Shaffer. Thank you very much. Next from the City of Los Angeles' Department of Disability, Deaf and Hard of Hearing, their A.D.A. compliance officer, Richard Ray.

Richard Ray (Los Angeles, CA)
Good morning. >> My name is Richard Ray. I work with the City of Los Angeles Department on Disability. I work in the Disability Access and Services Division. My role is to ensure that city programs and services are accessible to all individuals with disabilities, specifically in the area of Deaf and Hard of Hearing. My focus also includes working with law enforcement, 911 Communications Center, Emergency Preparedness Department as well as other City departments. I cover a wide range of areas to make sure that the City's programs and services are accessible. I have also been involved in the National Emergency Number Association (NENA) since 1995. Part of what I do is to ensure that the Los Angeles Police Department 911 system is accessible to all TTY users. I want to take this opportunity to thank the F.C.C. for hosting this summit today. This helps all of us help all of you. So I thank you very much. Let me move forward with the presentation. The National Emergency Number Association (or NENA) is a non-profit organization that has over 7,000 members from these different regions across the United States Canada, including Mexico.

NENA's goal is to ensure that the 911 emergency communications system is working and if the system works properly these people receive emergency services.

Many of you may know that issues have been discussed today: The explosion of the video relay service and the I.P. relay service across the nation and the increased use of this service and the decreasing use of TTYs when accessing 911 services. The community has shifted and is focusing its energy on devices such as text messaging, email and various types of systems that have no direct access to 9-1-1 centers.

Now, I have conducted some test calls several months ago. There are about eight different test calls and these tests were very interesting. I contacted various VRS providers through these eight different test calls.

There is another issue with I.P. relay service and there were two states that contacted the PSAP in a series of incidents that occurred where the call was connected to the wrong PSAP. Now, these VRS test calls I conducted what was interesting from what I experienced is that the time range in order to reach a PSAP was between one minute and 55 seconds to four minutes and 18 seconds. That was the range. This is quite a large range. The average time was about two minutes and 53 seconds. That was the average time in order to reach a PSAP. The issue raised from my experiences on these test calls was the inability of the VRS to locate the appropriate number in the database in order to connect with the appropriate PSAP.

There were concerns with that process. While I was doing these test calls, I also observed some interesting behaviors, so to speak, with the interpreters and the whole process for handing the calls. We will not go there. Let's shift back to the point of these test calls. They really demonstrated to me that I was able to bring to NENA's attention to be able to address these issues and concerns after they saw the videotape of the test calls. It was then determined that we set up a working group to address the immediate issue as well as to establish the long-term goal. Now, because of that, we set up a working group, we included several VRS and IP providers, PSAP administrators as well as other representatives from the community and consumers in this working group. This is the first time NENA has created such a committee to include consumers. It is interesting to have all the players at the table to share their ideas and hash out the issues. This is how we can actually develop a standard in the short-term goal as well as a long-term solution.

Now, the next slide -- I'll b talk about those in a minute. NENA Accessibility Issues Committee has created a working draft document. It is called an Operational Information Document (O.I.D.) The committee has put together the information for the local PSAPs so they can follow these guidelines and recommendations. All information needed for the document, which includes the call transferring process is contained in it. Also included, is the training for the PSAPs to be able to handle the call that comes in through this system.

Now, I want to skip here. There are a few different options at this time prior to the Next Generation (NG) 9-1-1 implementation. One is to immediately improve the present method and to improve the accuracy of the 24/7 emergency number database. To be asked at the relay service centers so they can pull up this information, connect to that local PSAP, the appropriate PSAP, as well as to establish an effective and automatic center for the search process. Also for the providers, this will to give them immediate access to nationwide database without any restrictions or any financial hardship.

The second category or SOLUTION that we have is for the relay center to interface with E911/PSAP using the current VoIP E911 solutions. This includes pre-registration with full caller address as required of VoIP. It is equivalent to the VoIP process, which provides state, county or city addresses during the call and then be connected to the appropriate PSAP, if appropriate.

The other approach would be that the VP users would provide their partial (state, county, city) address during the call should the interpreter need to connect to the appropriate PSAP again.

The third OPTION is for VRS Center to have a fully automated VoIP interim solution in 911 for the location of call routing to the appropriate PSAP. Now, this SLIDE here relates to different ideas that we could include in our document. Again, it is still in the DRAFT stages. Now, we are ready to go into the emergency call FLOW. It is possible that the relay services could act as specialized VSP (VoIP Service Provider), or they can contract with a V.S.P. provider. When customers are calling via V.S.P. it is just like a voice service provider or they could utilize V.S.P. For example, when the call is connected to the various service providers, the call follows into two

paths which could be V.S.P. and that would go into the E.S.G.W., *emergency service gateway. It would then go to the Selective Router* into the PSAP. At the same time, the call would go into the V.P.C. (VoIP Positioning Center) to get the ALI information and then into the PSAP. That would be a good solution. There are some areas that we do need to look at when developing this DRAFT document. We have to look at the policy issues. What is going to happen with the F.C.C.'s plans and what it plans to do and how we can then push for that, so to speak. In order for this to be successful, this thing needs to be worked on, which depends on the outcome from the F.C.C. The next generation, 911, I'm going to let Brian talk about it now because he is more knowledgeable and able to go into technical discussion.

Thank you.

Dana Shaffer. Next Judy Harkins.

Judy Harkins (Gallaudet Univ. & RERC TA)

Thank you. First of all, I commend NENA for being such a wonderful partner in the E-9-1-1 Stakeholder Council and for jumping into these issues now and working on guidelines. I have been participating in one of the committees that Richard Ray just described. One of the things that has been very gratifying to me has been the active participation of several deaf people in these conference calls. Conference calls, which are such an important part of stakeholder collaborations in general in today's world, are accessible now via faster forms of relay service, particularly VRS. I want to commend the FCC for its role in making them accessible; it has been a wonderful achievement.

Before I address technology, there is one thing I wanted to suggest to the Commission that doesn't relate to technology. I noticed that, in the framework the FCC provided for the relay providers to describe the status of 9-1-1 call handling today, providers were asked "Have you had complaints?" I want to ask that in monitoring and enforcement related to 9-1-1 accessibility, that the Commission not rely on complaints for understanding whether an implementation is effective. There are too few people calling 9-1-1, people are upset during and after an emergency, and consumers may not think to make a complaint to a provider. What will be needed is to study, test, and evaluate the effectiveness of approaches. Richard Ray, on his own, did simple calls; and by doing so he quickly got the attention of NENA, because he was able to show how long it took to connect with 9-1-1 through several video relay services. I think, going forward, the FCC will need to measure and establish benchmarks so that we can truly understand when progress is being made.

Direct vs Indirect Access

I want to talk about direct access to 9-1-1 because a lot of our conversation today has been about relay services, which provide indirect forms of access. Direct access means contacting the PSAP without going through a relay service. The primary modes for accessible direct calling are:

Two way text

Text and voice mixed, for communicating using voice carry over (VCO) and hearing carry over (HCO).

In the future, it is hoped that video will also be used to call directly into a PSAP so that a call taker could see the caller, while communicating with that caller in IP text (typing back and forth) or IP text plus voice, since fluent signers will not be present in PSAPs. Thus for direct calling purposes, video coupled with voice and text can be an appropriate accessible technology in the next generation. (Brian Rosen of NeuStar is going to address next generation technologies in his remarks, which follow.)

Which text formats will be supported in IP?

Between the time in the future when we arrive at next generation IP PSAP technology and now, when we just have TTY direct access through the PSTN, the FCC needs to be involved in defining what interoperable IP text and video communication standards are going to be.

The short term solutions for direct access will need to make use of existing technology, because we shouldn't wait until the PSAPs are fully IP implemented nationwide before consumers with disabilities have direct access to them.

However, for migrating forward to the next generation, standards are going to need to be defined and implemented. Right now we have a situation where IP voice interoperability is completely market driven, while the interoperability of text communication is not being driven by the market.

There are standards that have been written around this issue. Quite a bit of work has been done to specify interactive text, sometimes called real time conversational text, or IP text. Industry standards have been written with the idea of making it possible for TTY transmitted over the PSTN to go through gateways where it would be converted to IP text format, to make its way through IP networks, and enable two way conversation between text users on PSTN and IP networks. Standards have been written so that users can easily mix voice and text. They will support VCO and HCO. This element is going to be important for accessibility.

The PSAPs need to have a reasonable and stable target for IP text. If we have a lot of commercial varieties of text communication, and keep coming up with new ones, it will be difficult for PSAPs to accommodate them all. We are likely to find ourselves in a situation where direct text calls into 9-1-1 will be less well supported, so that deaf and many hard of hearing consumers will become completely reliant on relay services for emergency calls.

Mobile to 9-1-1

Next I would like to say something about mobile to 9-1-1. In the hearing community about half of all calls to 9-1-1 are from cell phones. Text users can currently access 9-1-1 while mobile only through an external TTY plugged into their devices. Due to their size, nobody carries around an external TTY. The FCC was very forward looking by requiring location identification for mobile devices and in the late

1990s by requiring TTY compatibility for equal mobile access to 9-1-1. At that time, cell phones and pagers were separate devices. Today, they are no longer separate devices. Many phones have keyboards and screens.

Today, we already have TTY at the PSAP. It is also supported in the wireless network. But we still do not have a way to use handhelds to make a direct TTY call from the device without plugging in an external device. One possible short term, temporary solution would be to have devices that have keyboards and screens to be able to initiate TTY calls directly. This would provide the user with location identification comparable to that available to hearing people because it would go through the voice channel to the PSAP, using Phase II location technology where available. We would not have to have changes in the PSAP at this time. This would get us through this time gap until we have a direct way of going in using IP text. Even if the contact could be made from the Internet side of the phone/PDA, using instant messages or IP relay services, currently lacking is a way to provide the location identification information. So, this proposal is a short term way to possibly address the problem. I want to mention that I have spoken with Research in Motion (RIM), and I want to compliment them on studying methods of achieving this. and trying to keep me informed what the technical issues may be; I thank them for their willingness to discuss this.

This slide lists some of the advantages and disadvantages of this short term solution:

- Uses 9-1-1 network selective routing
- Location of PSAP and location of caller equivalent to hearing customers
- No ongoing expenditure
- Direct communication with PSAP
- Relatively short term
- No change needed at PSAP (slow process to change)
- Will not work unless very easy and obvious to use
- May be hidden technical issues - no policy mechanism to reimburse manufacturers for R&D
- Will another solution arrive first?

Unless the solution is designed in such a way that is easy for consumers to use, where they can see an icon or command clearly on their screen, it will not be viable. If consumers have to follow any special procedures, it is not going to work. There is also the question of whether other solutions would arrive first, so it requires looking at the entire technology scene.

In relation to this assessment, I would like to see increased assistance from the FCC's Office of Engineering and Technology (OET) around this issue. We found OET to be very helpful in the past and I hope we can see a lot of presence from people who are knowledgeable on this issue working in the Stakeholder Council and helping to guide the technical aspects of discussion.

I will briefly mention SMS because it is in cell phones although it is not yet received by our PSAPs here in the United States. It is being

used in a few countries because there is nothing else for accessibility, but it is not completely reliable. The message may be delayed. It is not something the wireless carriers seem to want to have to use for 9-1-1 because they didn't engineer the technology to be used for emergency contacts. And in countries where it is used, for disability access to emergency services, the services typically require consumer registration so that they do not receive fraudulent calls.

Again, the wireless device is so important because such a large proportion of today's 9-1-1 calls are done while mobile. Another option would be indirect calling through a relay service that supports wireless calling.

This comes back to an issue that Karen Strauss raised about possibly having a single, specialized relay service for emergency calls that can handle a variety of new media as they come along and are added. If mobile tracking technology could be used to pass the location of the wireless Internet user on to such a relay service, then that might be a way of passing that on to 9-1-1 from the relay service. Bill McClelland mentioned this in his earlier remarks. The advantage of this possible approach is that you could handle the changes in protocols that people use more quickly over time, and not have to wait years and years until people who are deaf or hard of hearing have drifted away from the technology being supported - which is the difficult situation we face today.

Whatever method we are using over the wireless networks, it is important to know how long the call takes, since text messaging over wireless networks can be slow. Again, we need to evaluate rather than rely on complaints for implementation of this policy. That concludes my remarks.

>>**Dana Shaffer.** We move on to the future. Thank you very much. Last but certainly not least, from NeuStar, Brian Rosen.

>> **Brian Rosen (NeuStar)**
Good afternoon. Thank you very much for holding this Summit. Today I want to talk about what we are doing in the Next Generation 9-1-1 system design. We have been taking the needs of disabled people into account as we design the system from the word go. There are several advocates who have been working with our standards organizations, making sure we get it right at the beginning. We have captured a lot of needs, but certainly the standards are not complete yet. We are still able to handle changes to the standards, so there are opportunities for more input.

Next Generation 9-1-1 is a complete redesign. It will be based on IP. We will take IP networks all the way to the call takers. The procedures for answering a call may the same as the current system but it does require complete PSAP upgrades. So, it is not something that is going to happen right away. All calls will be answered as IP at the PSAP. We will have to transition older technology to IP before it is answered at the PSAP. The PSAPs are going to be multimedia. All will handle video and text at all positions. It is not just for disabled access; it is because consumer devices are being built with all of these technologies.

For endpoints that originate calls as IP, it is the access network, the broadband network, that supplies location to the endpoint and then the endpoint includes that location in the signaling, with the call. The location is then used to route the call to the correct PSAP and the location will also show up at that PSAP for display and further onward routing. You can take a device from anywhere, plug it in, and it will acquire its location from the broadband network which can be used to route the call regardless of the technology that is being used, regardless of the media. The "ALI" is pretty much gone; there is no inherent relationship between the telephone number and the location, so we don't need the telephone number to get location anymore. Location comes with the call. This works for wireless and wireline the same way. It will handle a wide variety of text messages, even handle video, directly, to every PSAP.

Further, the media preferences are signaled on the call. We know whether this is a video call, a text call or voice. We support bridging for all media so we can have interpreter and supervisors and parents or anyone else we need to get on the call. Since that will work for all media, you can have a multiparty text conference. No problem.

The language preferences are also signaled. If a person is a Spanish speaker we will know before we answer the call. We can have routing to a Spanish speaking call taker. Or, we can automatically engage a interpreter service.

We natively handle third party calls. We are talking about a call like a Relay call which has three parties, the caller, the third party and the PSAP. The third party can be Relay or it be something like OnStar. It can be a monitoring system: "Help, I've fallen and I can't get up". All of those are handled the same way. They are an inherent feature of the Next Generation 9-1-1 system. The call appears as a three way call, routed by the location of the caller. The location is picked up from the access network as I described before. Regardless of which service you use, the location will be sent in the signaling from the caller and it will be used to route to the correct PSAP. The call taker knows it is a third party call before it is answered. It works for all media; we can have the video for video relay show up at the PSAP even if it most useful to the interpreter. Back ground video is useful just like back ground audio is useful to a call taker. Much better for the deaf or any other disabled person. All calls will get to the right PSAP. Relay can even originate a call. If a normal call is placed to Relay, they can decide it an emergency call. The relay operator can initiate a 9-1-1 call which will get routed to the correct PSAP and show as an emergency three way call with all parties identified.

I took a couple of notes as I was listening to other people because a lot of things that have been brought up as problems, we have capabilities for in NG-9-1-1. For example, we can handle different media in different directions. So if you have video interpretation one way and audio or text the other we can do that. We have the different media go different directions. Because all of the PSAPs will be on IP networks we can use broadcast; what you would think of as web training. If you want to run a training class for all the PSAPs in the state we

can do it at the PSAP with everybody connected: two way video, audio and text using IP mechanisms.

Another capability is that testing for an individual user is possible. You can run a test on your device which will tell you if that device is currently reporting correct location, whether that location will route you to the correct PSAP, and whether you can establish two way media of your choice to that PSAP. So a deaf or hearing impaired person, before he makes the 9 1 1 call, can determine whether that device will be able to correctly place the call and you can run this test any time. It does not involve the operator. It is all automatic. Thank you very much.

Dana Shaffer. Before I turn the panel over for questions, I think we should give them a nice thank you for their presentation. Just a quick note, to answer Dr. Harkins and talk about the, so everyone knows and one reason I'm particularly thankful for the opportunity to be a very small part of today. You will see a lot of the same faces but with regard to 9-1-1, pulled expertise from all across the agency into the new of Public Safety and Homeland Security Bureau. From competition with regard to 9-1-1 and from the Wireless Telecommunications Bureau. Still close relationship and work and we look forward and hope to hear from each one of you. I'll be glad to give you all of my contact information. I brought plenty of business cards. But before I turn it over to Cheryl King, I know she will not thank herself. I'd like to also thank, Jay, Greg, Tom, Monica and Cheryl for putting this incredible program together today. And with that there are begin questioning.

Cheryl King. Thank you Dana, and thank you to all the panels and presenters. Does anyone need a break before we continue to the Roundtable portion of the Summit? No, move right on, correct. Alright. We have a limited amount of time left with our interpreters and our transcribers because we are over our time from the agenda, but let's try to hit the high points.

Cheryl King Question: Prior to the next generation systems coming out, how do you Internet-based providers perceive that you will be able to respond to the needs of the consumers going forward.

Mark Ekse. Okay, I'll take the first spot on the hot seat. I think Paul (Ludwick) in his comments earlier today indicated that there is no one or two magic bullets that we can apply to make this system work. There are lots of incremental steps we need to take along the way.

One of those is going to be the uniform numbering system. There has been some discussion today on the need for call backs from the PSAP's and there are a couple of different categories of call backs that we need to be able to support. One of those is when the end user disconnects the call or that call is disconnected for whatever reason on the part of the deaf, hard of hearing, or speech impaired user. But there is also the case where the call center that is processing the call goes off the air. In South Dakota think of someone being careless with a backhoe and taking out the fiber going into a building. That's one situation where that VI can not call back, and the PSAP certainly cannot call back to that center, and get reconnected with that user. Uniform numbering is absolutely critical to being able to provide a safe robust service.

I think along with that we need to look at the registration issue and how that can best be handled. I think there have been a lot of comments on all side of registration, but I think one of the places you will find consensus is that if we do a registration, it probably needs to be a single registration, with that information being shared across the providers. Each of the providers may have their own user profiles that have preferences and proprietary features in it. But that basic MSAG, Master Street Address Guideline type registration needs to be uniform and maintained universally for all of the providers. And I think those are two of the first steps that need to be taken before 9-1-1 service can really be reasonably provided on an interim basis.

*** End ***